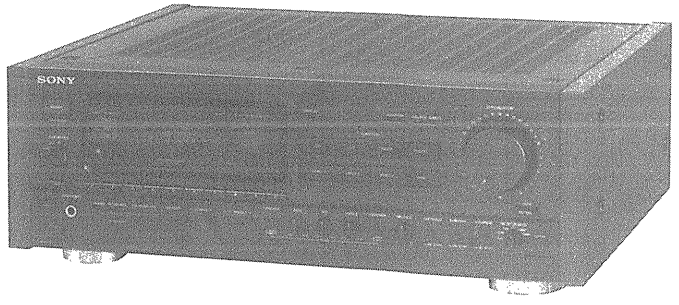
STR-GX80ES/GX90ES

SERVICE MANUAL

US Model
Netherlands Model
STR-GX80ES

US Model
Canadian Model
STR-GX90ES



This photo is STR-GX90ES

SPECIFICATIONS

AUDIO POWER SPECIFICATIONS

POWER OUTPUT AND TOTAL HARMONIC DISTORTION:

With 8 ohm load, both channels driven, from 20 – 20,000 Hz, rated 110 watts (STR-GX80ES) or 120 watts (STR-GX90ES) per channel minimum RMS power, with no more than 0.008 % total harmonic distortion from 250 milliwatts to rated output.

With 4 ohm load, both channels driven, from 20-20,000 Hz, rated 110 watts (STR-GX80ES) or 120 watts (STR-GX90ES) per channel minimum RMS power, with no more than 0.015 % total harmonic distortion from 250 milliwatts to rated output.

Other Specifications

Amplifier section

Dynamic power output

STR-GX80ES

145 watts + 145 watts (8 ohms, at 1 kHz IHF)
200 watts + 200 watts (4 ohms, at 1 kHz IHF)
310 watts + 310 watts (2 ohms, at 1 kHz IHF)

STR-GX90ES

160 watts + 160 watts (8 ohms, at 1 kHz IHF)
220 watts + 220 watts (4 ohms, at 1 kHz IHF)
350 watts + 350 watts (2 ohms, at 1 kHz IHF)

Harmonic distortion

Less than 0.008 % at rated output

Frequency response

PHONO: RIAA equalization curve ± 0.3 dB
CD, DAT
TAPE
VIDEO 1, 2, 3 (AUDIO)
ADAPTOR
} 20 Hz – 20 kHz $^{+0}_{-0.3}$ dB

Damping factor 60 (8 ohms, 1 kHz)

— Continued on next page —

FM STEREO/FM-AM RECEIVER

SONY®

Inputs

		Sensitivity	Impedance	S/N (weighting network, input level)
PHONO	MM	2.5 mV	50 kilohms	90 dB 80 dB* (A, 5 mV)
	MC (STR-GX90ES only)	0.17 mV	100 ohms	73 dB 84 dB (A, 0.5 mV)
CD, VIDEO (1), 2, TAPE, DAT, TAPE MONITOR		150 mV	50 kilohms	98 dB 85 dB* (A, 150 mV)
POWER IN		1.1 V	50 kilohms	120 dB

* '78 IHF

Outputs
VIDEO (1) AUDIO OUT,
REC OUT:
Voltage 150 mV
Impedance 1 kilohm
PRE OUT: 1.1 V
SPEAKER A, B:
Accepts speakers of 4 – 16 ohms.
HEADPHONES:
Accepts low and high impedance headphones.

Video inputs
VIDEO 1, 2, 3: 1 Vp-p, 75 ohms

Video outputs
VIDEO 1, 2, MONITOR: 1 Vp-p, 75 ohms

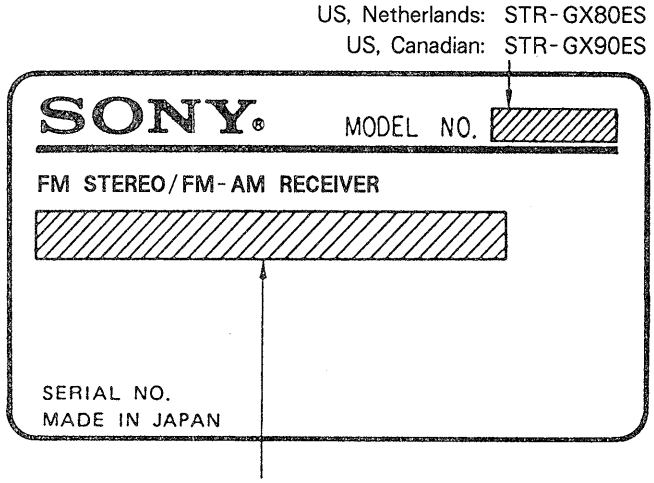
Tone controls

	Response	Turnover frequency
BASS	± 10 dB at 100 Hz	400 Hz
	± 7.5 dB at 100 Hz	200 Hz (STR-GX90ES only)
MID	± 6 dB at 1 kHz	——
TREBLE	± 10 dB at 10 kHz	3 kHz
	± 6 dB at 10 kHz	6 kHz (STR-GX90ES only)

Muting
−20 dB

MODEL IDENTIFICATION

– Specification Label –



STR-GX80ES
US Model: AC :120V~60Hz
Netherlands Model: AC :220V~50Hz
STR-GX90ES
US Model: AC :120V~60Hz
Canadian Model: AC :120V~60Hz

FM/AM tuner section

	FM tuner section	AM tuner section
Tuning	87.5 — 108 MHz	530 — 1,710 kHz (with the AM tuning interval set at 10 kHz) 531 — 1,710 kHz (with the AM tuning interval set at 9 kHz)
Antenna	75 ohms, unbalanced 300 ohms, balanced (STR-GX80ES only)	External antenna terminal, loop antenna
Intermediate frequency	10.7 MHz	450 kHz
Sensitivity at 50 dB quieting	16.8 dBf, 3.8 μV (mono) 37.9 dBf, 42.3 μV (stereo)	—
Usable sensitivity	11.2 dBf, 2 μV (IHF)	Loop antenna: 50 dB/m (at 1,000 kHz) External antenna: 100 μV (at 1,000 kHz)
Signal-to-noise ratio	83 dB (mono) 78 dB (stereo)	54 dB (at 50 mV/m)
Harmonic distortion	0.05 % (mono), 0.07 % (stereo) at 1 kHz	0.3 % (at 50 mV/m, 400 Hz)
Selectivity	85 dB at 400 kHz	30 dB at 10 kHz
Separation	55 dB at 1 kHz	
Frequency response	15 Hz — 15 kHz ±0.5 dB	

General

System
Tuner section: PLL quartz-locked digital synthesizer system
Preamplifier section: low-noise NF type equalizer amp
Power amplifier section: pure-complementary SEPP

Power requirements
120 V AC, 60 Hz

Power consumption

	USA model	Canadian model
STR-GX80ES	275 watts	
STR-GX90ES	295 watts	672 VA

AC outlets
Two switched (total 100 watts)

Dimensions
STR-GX80ES
Approx. 430×160×436 mm (w/h/d) (17×6³/₈×17¹/₄ inches)
STR-GX90ES
Approx. 470×160×436 mm (w/h/d) (18⁵/₈×6³/₈×17¹/₄ inches)
including projecting parts and controls

Weight
STR-GX80ES
Approx. 13.5 kg (29 lb 13 oz) net
STR-GX90ES
Approx. 14.5 kg (32 lb) net

Accessories supplied
FM ribbon antenna (1)
AM loop antenna (1)
Remote Commander RM-P303 (1)
Sony batteries SUM-3(NS) (for the remote commander) (2)

Design and specifications subject to change without notice.

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SAFETY CHECK-OUT

After correcting the original service problem, perform the following safety check before releasing the set to the customer:
Check the antenna terminals, metal trim, "metallized" knobs, screws, and all other exposed metal parts for AC leakage. Check leakage as described below.

LEAKAGE TEST

The AC leakage from any exposed metal part to earth ground and from all exposed metal parts to any exposed metal part having a return to chassis, must not exceed 0.5 mA (500 microampers). Leakage current can be measured by any one of three methods.

1. A commercial leakage tester, such as the Simpson 229 or RCA WT-540A. Follow the manufacturers' instructions to use these instruments.
2. A battery-operated AC milliammeter. The Data Precision 245 digital multimeter is suitable for this job.
3. Measuring the voltage drop across a resistor by means of a VOM or battery-operated AC voltmeter. The "limit" indication is 0.75 V, so analog meters must have an accurate low-voltage scale. The Simpson 250 and Sanwa SH-63Trd are examples of a passive VOM that is suitable. Nearly all battery operated digital multimeters that have a 2 V AC range are suitable. (See Fig. A)

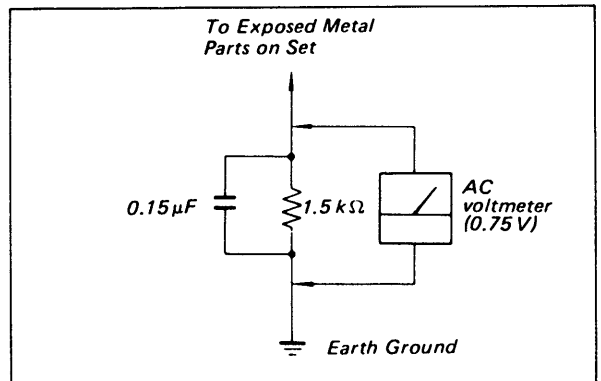
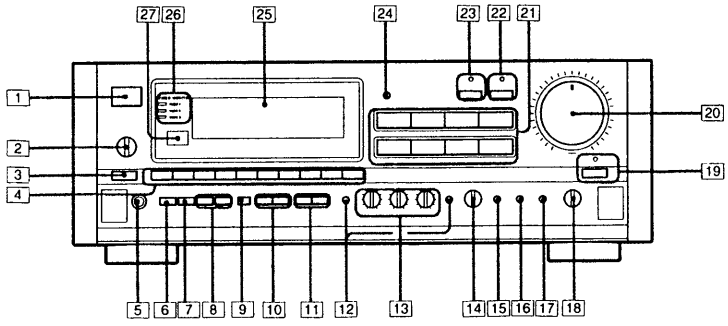


Fig. A. Using an AC voltmeter to check AC leakage.

SECTION 1
GENERAL

Parts Identification



1 POWER switch

2 SPEAKERS selector

3 SHIFT (memory page selector) button

4 Numeric buttons

5 HEADPHONES jack

6 FM MODE button

7 FM TUNE MODE AUTO/MAN (automatic/manual) button

8 FM/AM BAND buttons

9 MEMORY button

10 TUNING + / – buttons

11 PRESET tuning + / – buttons

12 TURNOVER frequency selector (STR-GX90ES only)

13 BASS, MID (mid-range), and TREBLE TONE controls

14 BALANCE control

15 CARTRIDGE selector (STR-GX90ES only)

16 SUBSONIC filter switch (STR-GX90ES only)

17 LOUDNESS switch

18 REC OUT SELECTOR (Recording output selector)

19 MUTING switch and indicator

20 ATTENUATOR knob and indicator

21 FUNCTION selectors

22 SOURCE DIRECT switch and indicator

23 ADAPTOR switch and indicator

24 DISPLAY button
This turns the display on or off.

25 Display window

26 VIDEO MONITOR indicators

27 Remote control sensor

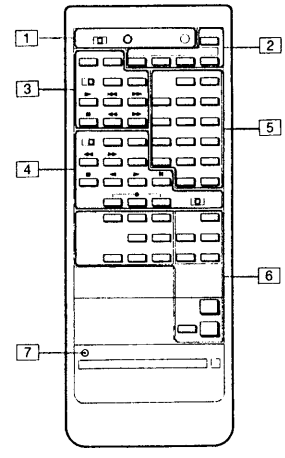
Changing the AM tuning interval
The AM tuning interval is preset to 10 kHz. To use the receiver where the frequency allocation system is based on a 9 kHz interval, make the following adjustments.

1 Turn on the power and tune in any AM station.
2 Turn off the power.
3 Press POWER while pressing the "+" TUNING button.

To reset the AM tuning interval, repeat the above steps.

Caution
When the interval is changed, all preset stations which you have memorized will be erased. After changing the interval, be sure to preset the stations again.

Remote Commander RM-P303



1 Program control section
Mode selector and indicator (page 24)
SONY STD: To control Sony equipment.
USER STD: To control equipment whose remote control functions are stored.
LEARN: To store functions of other remote commanders emitting infrared rays.
PROGRAM CLEAR button: Clears the stored functions.

2 Power control section
SYSTEM OFF button: Turns off the power of the whole system: LDP, VTR, TV and AUDIO.
LDP/VTR/TV/AUDIO POWER buttons: Control the power of each unit. (The VTR POWER button can be used only when the TAPE/VTR selector is set to VTR.)

3 CDP/LDP control section
CDP/LDP selector: Selects CDP (CD player) or LDP (laser disc player) to be played. The combined CD/LD player can be controlled with this selector set to LDP.
CONTINUE: Continuous play (only for CD player)
SHUFFLE: Shuffle play (only for CD player)
PGM: Program play (only for CD player)
D (disc) SKIP: Disc skip (for a CD player equipped with a multi-disc changer)
▶: Starts play.
I◀◀/▶▶I: Locates a desired selection
■: Stops play.
◀◀/▶▶: Manual search (these buttons control only laser disc player.)

4 TAPE/DAT/VTR control section
TAPE/VTR selector: Selects TAPE (tape deck) or VTR(VCR) to be controlled.
ANT TV/VTR button: Selects the output signal from the antenna terminal on the VCR, either a TV signal or VCR programs.
CH + / – buttons: Select channel on the VCR.
◀◀/▶▶: fast winding
■: Stop
◀/▶: Play
II: Pause
REV/● REC/FWD buttons
For reverse recording, press REV and REC together.
For forward recording, press FWD and REC together.
DECK/VTR selector
DECK A, B, and DAT: Selects A, B, or DAT.
VTR 1,2, and 3: Selects VCR type.
1: Betamax VCRs
2: 8mm VCRs
3: VHS VCRs

5 TV control section
VOL + / – buttons: Control the TV volume.
CH + / – buttons: Select a preset channel.
Program number (1 to 0) and ENTER buttons: Select the channel.

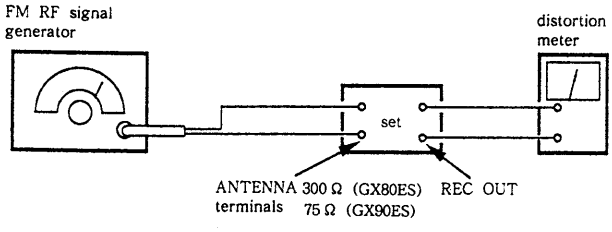
6 Receiver control section
FUNCTION selectors: Select an input source of the receiver.
SHIFT button: Selects a memory page.
TUNER PRESET station select buttons: Select a preset station.
PHONO START button: Starts record playing.
PHONO STOP button: Stops record playing.
MUTING button: Mutes the sound.
MASTER VOL + / – buttons: Control the receiver volume.

7 RESET button
Reset the commander to the initial state.

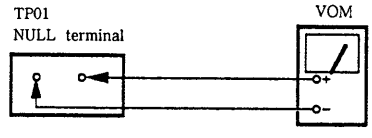
SECTION 2
ELECTRICAL ADJUSTMENTS

FM DISCRIMINATOR ALIGNMENT
(NULL and MONO Distortion)

Setting :



Carrier frequency : 98MHz
Modulation : 400Hz. 75kHz deviation (100%)
Output level : 1mV (60dB)

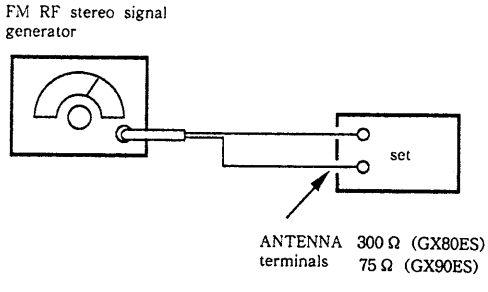


Procedure :

1. Tune the set 98MHz.
2. Adjust the T02 for 0V reading on VOM. ·····NULL
3. Adjust T03 for a minimum reading on the distortion meter.·····MONO Distortion.
4. Repeat the primary-side and secondary-side alignments several times.

FM TUNING STOP LEVEL ADJUSTMENT

Setting :



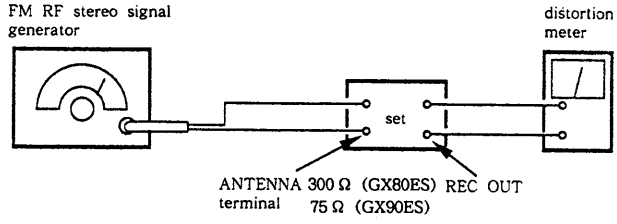
Carrier frequency : 98MHz (25dB)
Output level : 17.8 μ V
Modulation
Audio 400Hz : 33.75kHz deviation (45%)
Sub channel 38kHz : 33.75kHz deviation (45%)
Pilot signal 19kHz : 7.5kHz deviation (10%)

Procedure :

1. Tune the set to 98MHz by pressing the TUNING buttons.
2. Adjust RT03 so that the STEREO LED goes on.

FM METER ADJUSTMENT

Setting :



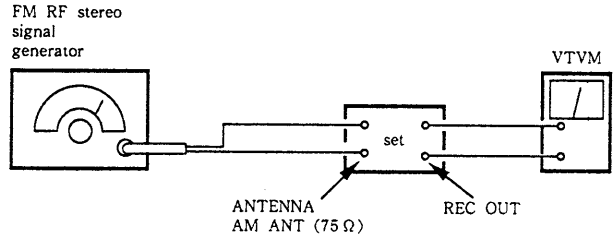
Carrier frequency : 98MHz
Output level : 316 μ V (50dB μ)
Modulation
Audio 400Hz : 33.75kHz deviation (45%)
Sub channel 38kHz : 33.75kHz deviation (45%)
Pilot signal 19kHz : 7.5kHz deviation (19%)

Procedure :

Adjust the RT04 so that the 10 point segments of the signal meter goes on.

FM Stereo Separation Adjustment

Setting :



Carrier frequency : 98MHz
Output level : 1mV (60dB)
Modulation :
Audio 1kHz : 33.7kHz deviation (45%)
Sub channel 38kHz : 33.75kHz deviation (45%)
Pilot signal 18kHz : 7.5kHz deviation (10%)
Mode : stereo

Procedure :

Tune the set to 98MHz

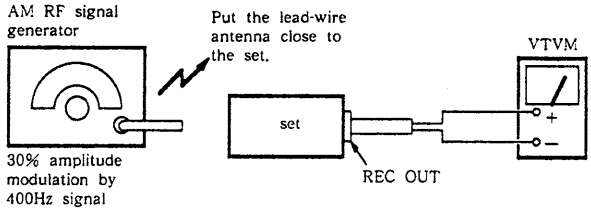
FM stereo signal generator output channel	VTVM connection	VTVM reading (dB)
L-CH	L-CH	Ⓐ
R-CH	L-CH	Ⓑ Adjust RT05 for minimum reading.
R-CH	R-CH	Ⓒ
L-CH	R-CH	Ⓓ Adjust RT05 for minimum reading.

L-CH Stereo separation : Ⓐ - Ⓑ
R-CH Stereo separation : Ⓒ - Ⓓ

The separations of both channels should be equal.

AM SECTION

Setting :



AM IF ADJUSTMENT

Procedure :

1. Tune the set to the SG signal.
2. Adjust for a maximum reading on VTVM.

	SG and set frequency	Adjustment parts	Reading on VTVM
1.	1400kHz	T01	Maximum

AM METER ADJUSTMENT

Procedure :

1. Tune the set 999kHz (70dB).
2. Adjust the RT02 so that the 9 point segment of the signal meter goes on.

AUDIO SECTION

Note :

1. DC BIAS and DC BALANCE adjustments should be made several minutes after the POWER switch is turned on (POWER ON).
2. Make DC BIAS adjustment first.
3. Repeat DC BIAS and DC BALANCE adjustments two or three times.
4. After replacing the power transistors, DC BIAS and DC BALANCE adjustments should be made.

DC Bias Adjustment (with no signal input)

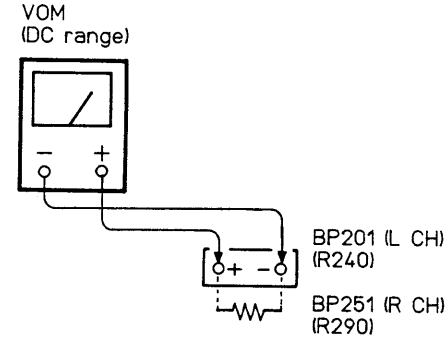
Procedure :

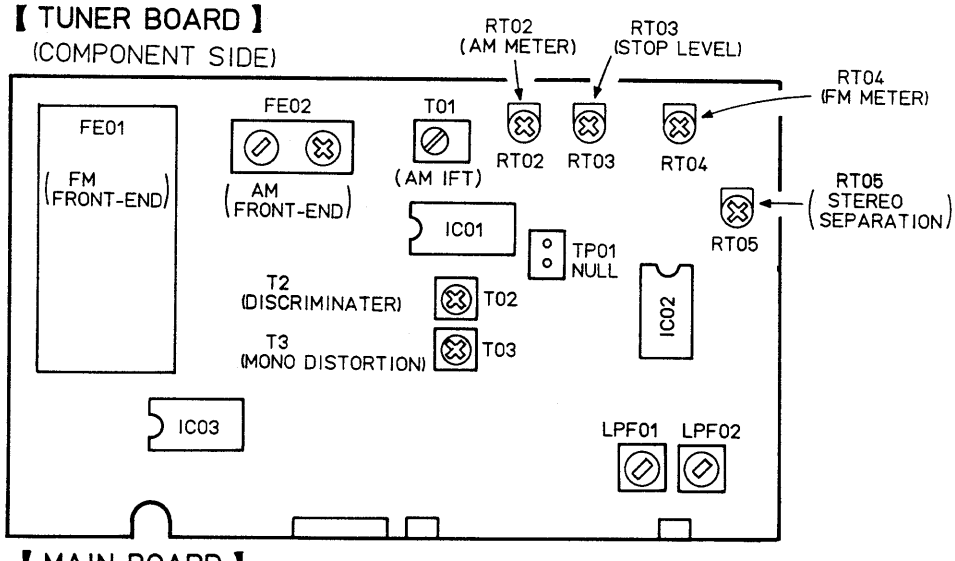
－L-CH－

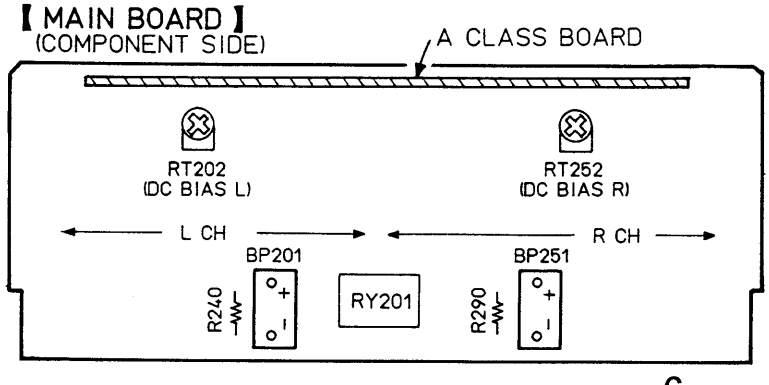
Adjust RT202 for 5mV readings.

－R-CH－

Adjust RT252 for 5mV readings.

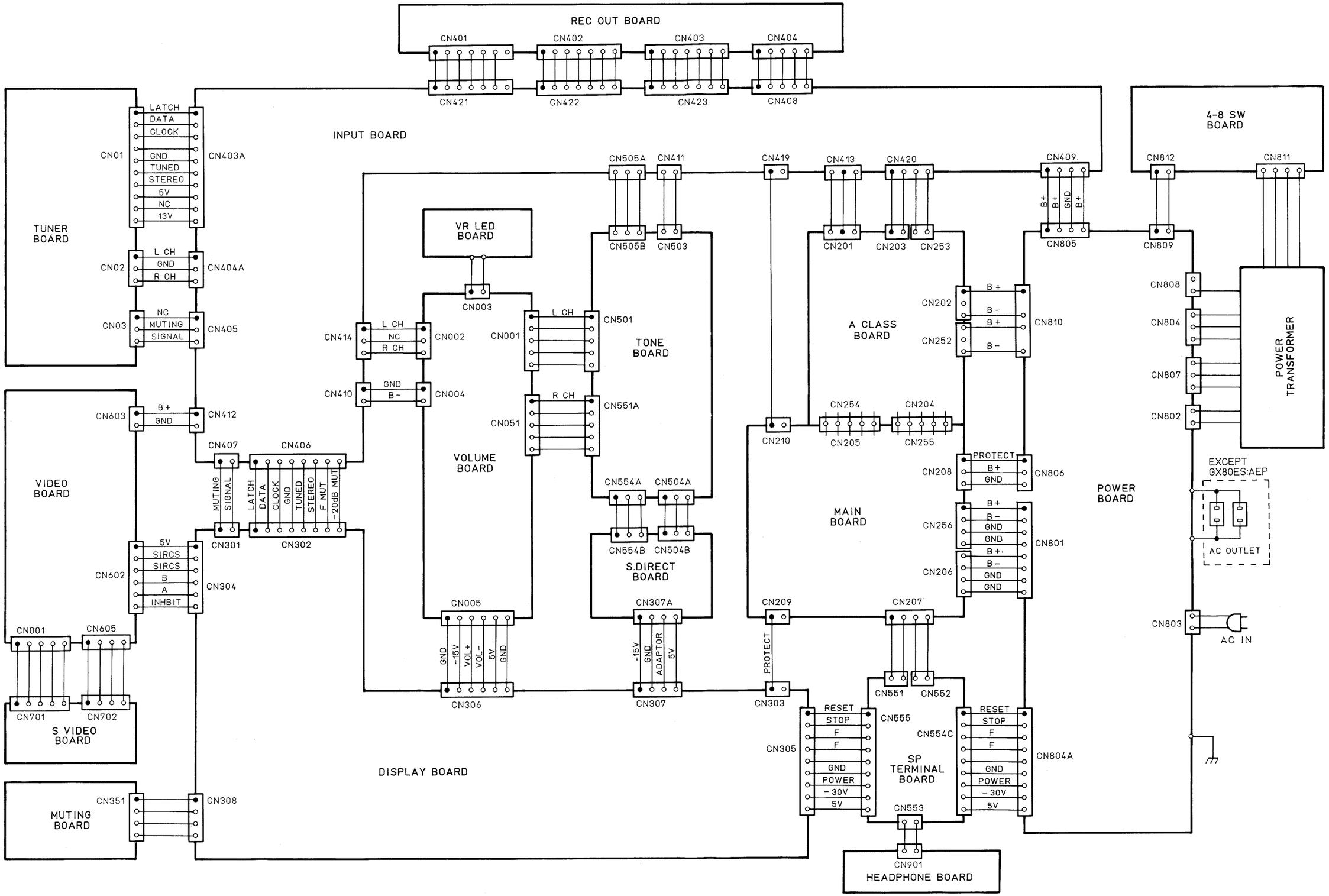




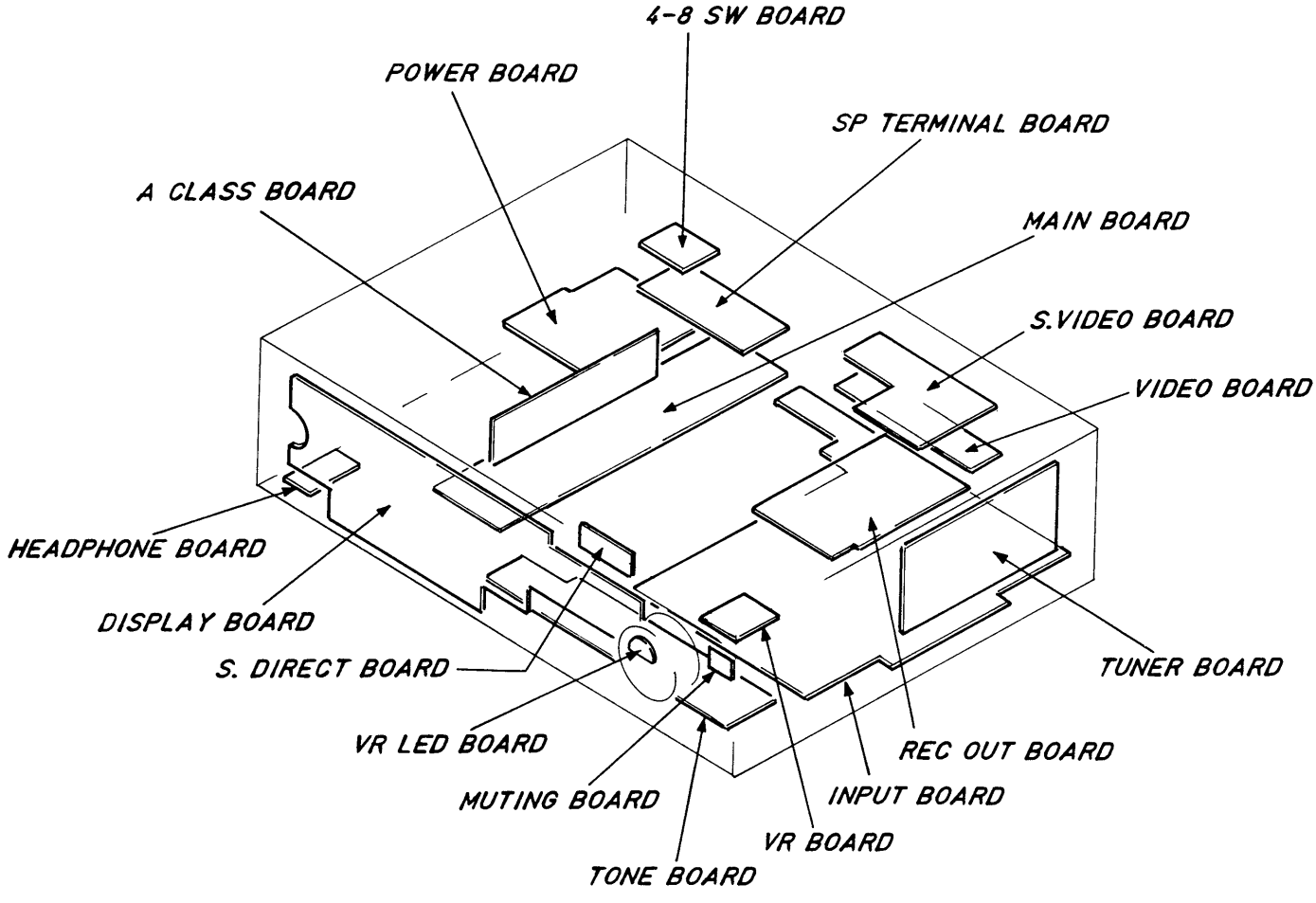


SECTION 3
DIAGRAMS

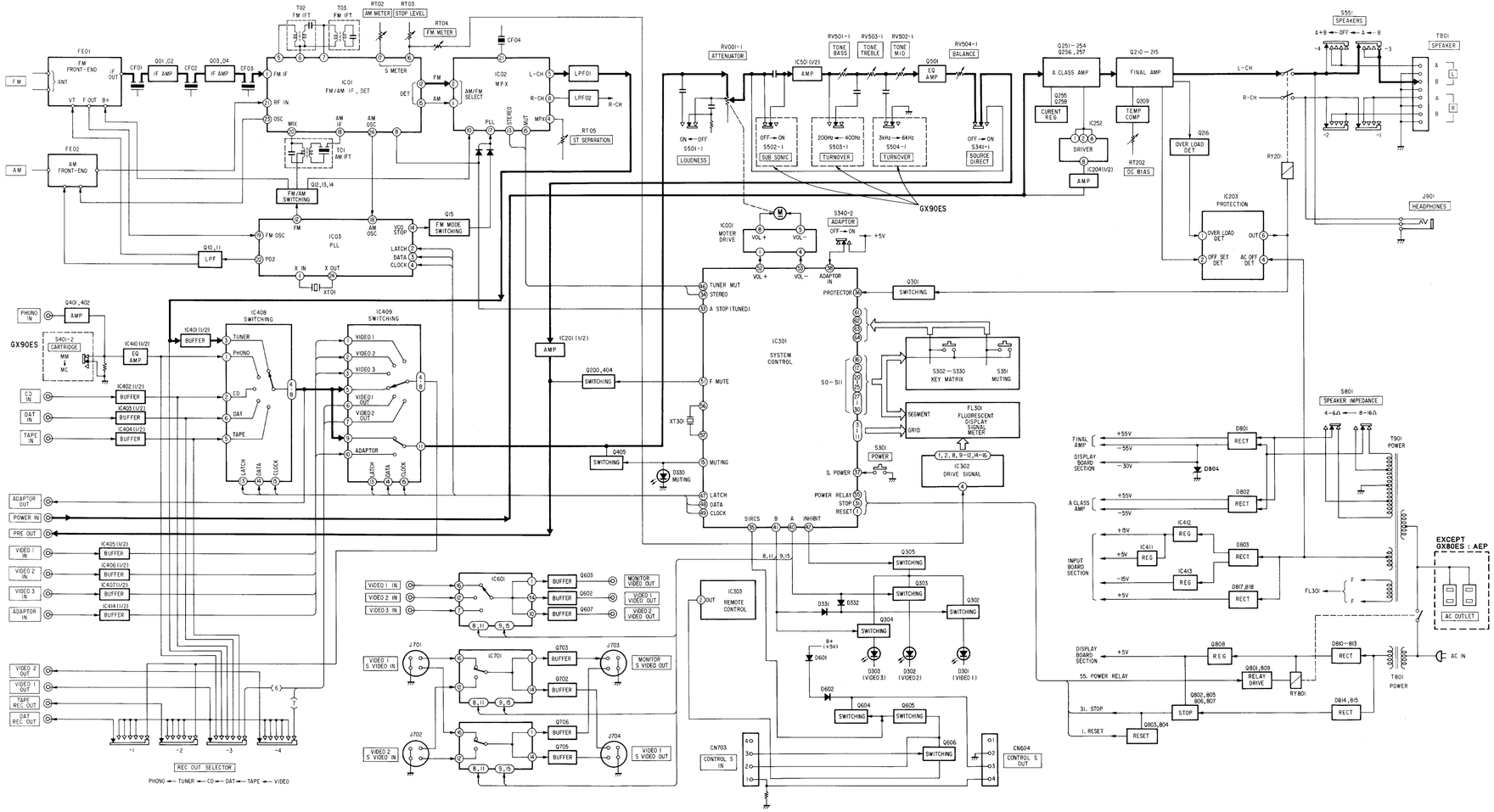
3-1. Frame Schematic Diagram



3-2. Circuit Boards Location

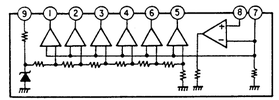


3-3. Block Diagram

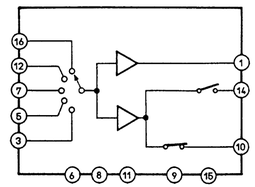


3-4. IC Block Diagrams

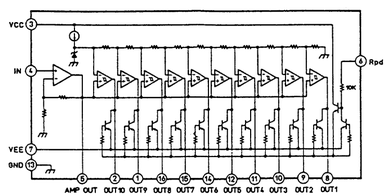
IR2E31



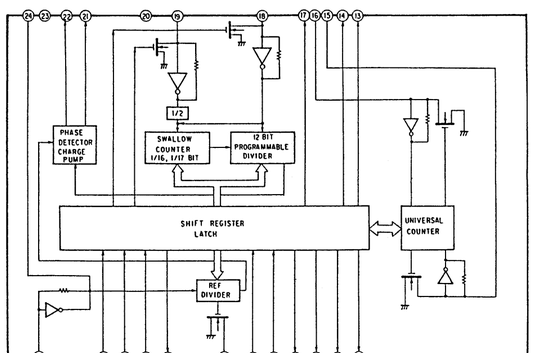
BA7625



LB1494

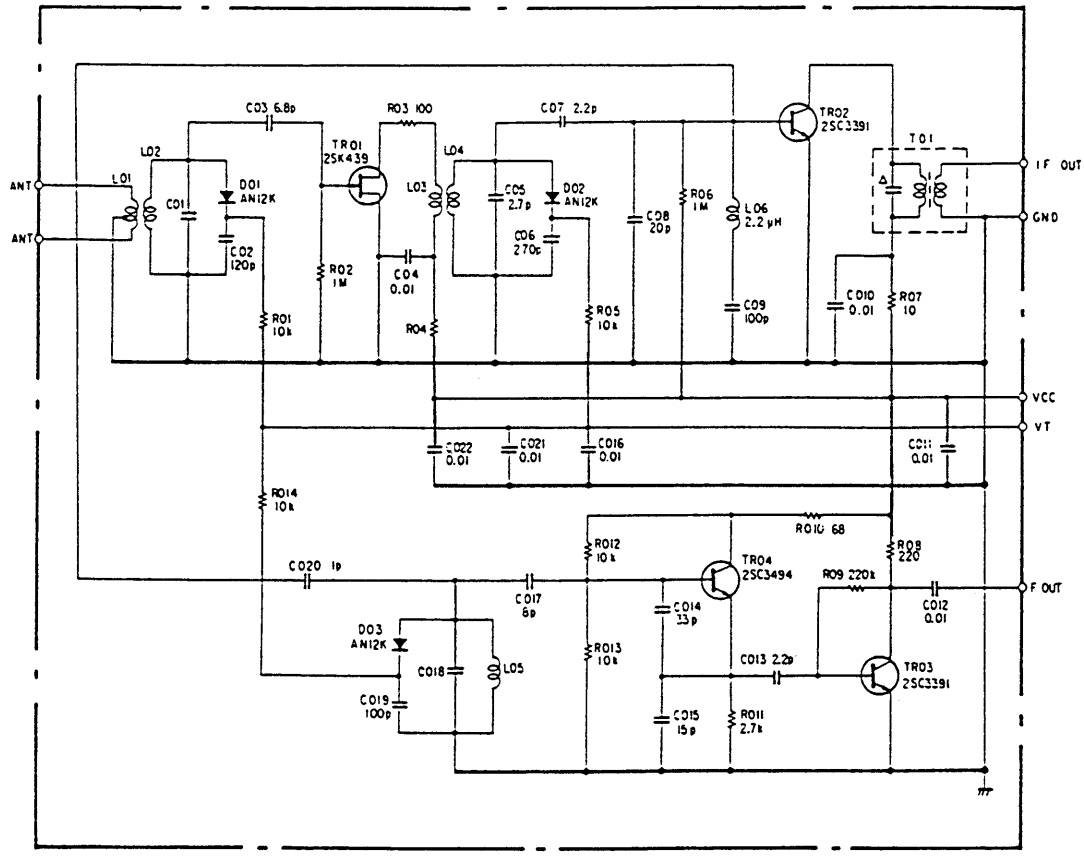


LC7218

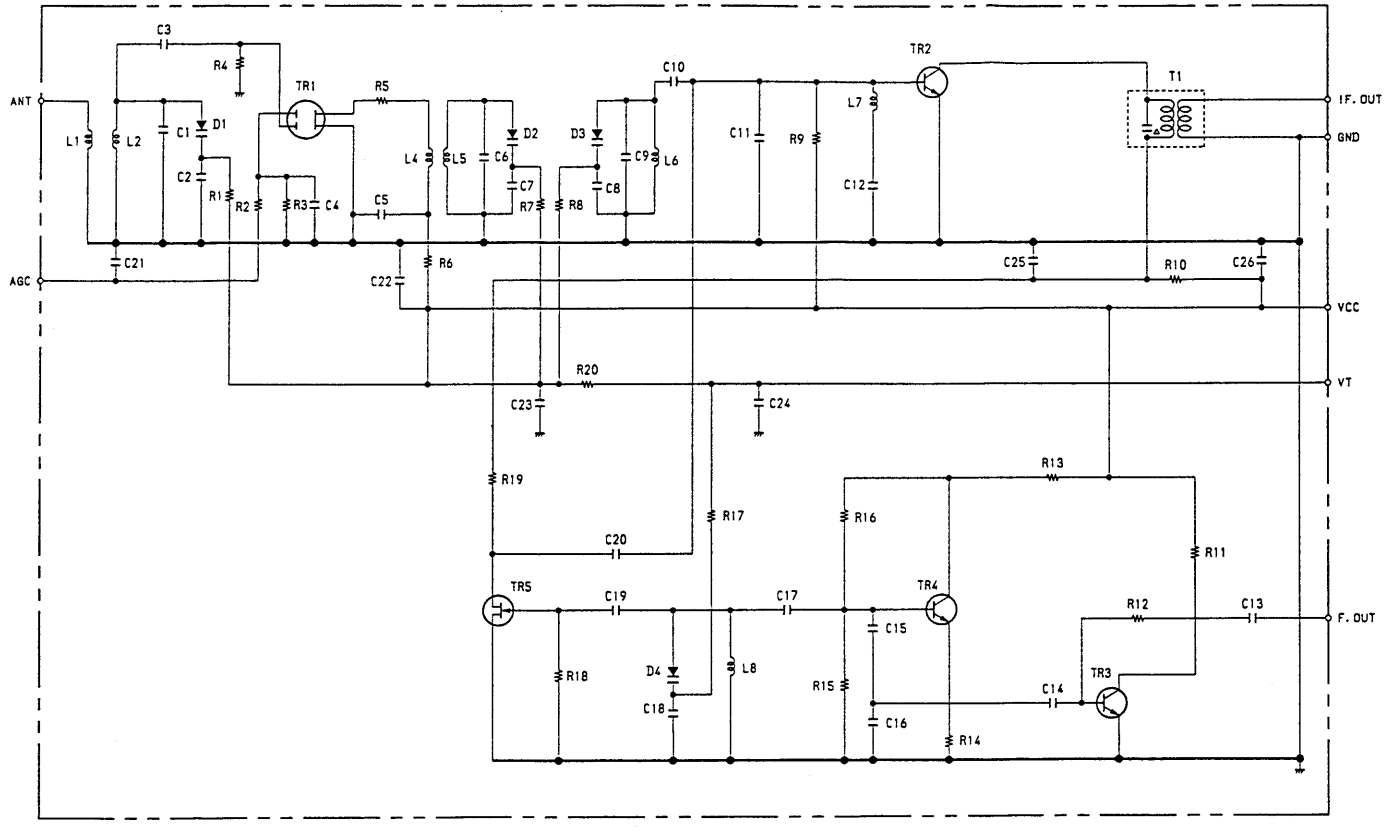


3-5. Front-End Schematic Diagram

FM FRONT-END FE01 (GX80ES : US)

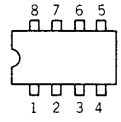


FM FRONT-END FE01 (GX90ES, GX80ES : Netherlands)



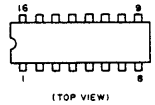
3-6. Semiconductor Lead Layouts

LB1639
RC4560D

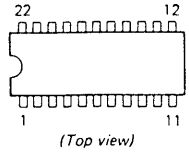


(Top view)

BA7625
LB1494

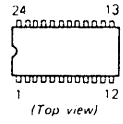


LA3401



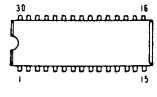
(Top view)

LA1266
LC7218



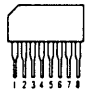
(Top view)

LC7822

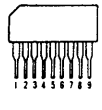


(Top view)

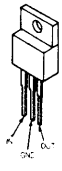
μ PC1237HA



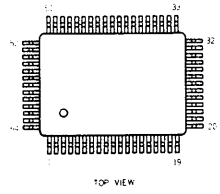
IR2E31A
μ PC4570HA-1



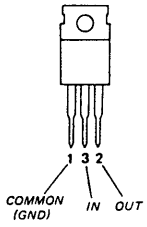
M5F78M05L
M5F78M15L



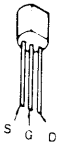
μ PD75206G-577-1B



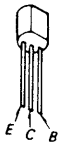
M5F79M15L



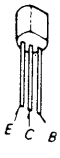
2SK30AGR33-GR3



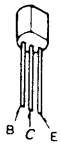
2SB1116A-K
2SC1841-PAFAEA
2SC1845-EA
2SC3112-B
2SC3622A-K
2SC3622A-LK



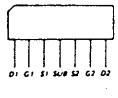
2SA988-F



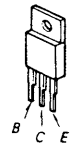
2SA950-



2SK389-GR

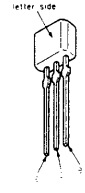


2SA1383-QP
2SC3514-QP
2SD1585-L
2SD2012

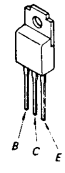


2SC2603-EF
2SC2669-Y
DTA124ES
DTC114ES
DTC143TS
DTC144ES

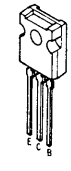
2SA1175-HFE
2SC2785-HFE
BN1L3Z-P



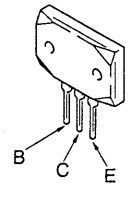
2SA1684-LK
2SC4431-LK



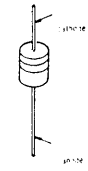
2SA1360-
2SC3423-



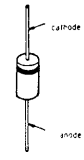
2SA1216-M-Y
2SC2922-M-Y



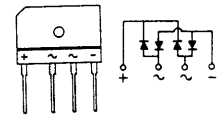
1SS120
HZC6C3L
HZS6C1L
UZL-7M1
UZL-12M1



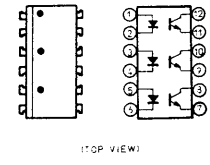
10E2
EQA02-28A
UZ4ALL
UZ-5.1BS



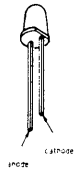
RBA-402
RBV-602-01



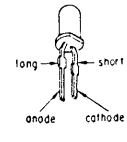
PC837



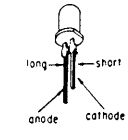
SEL2510C-D



SEL2810A-C



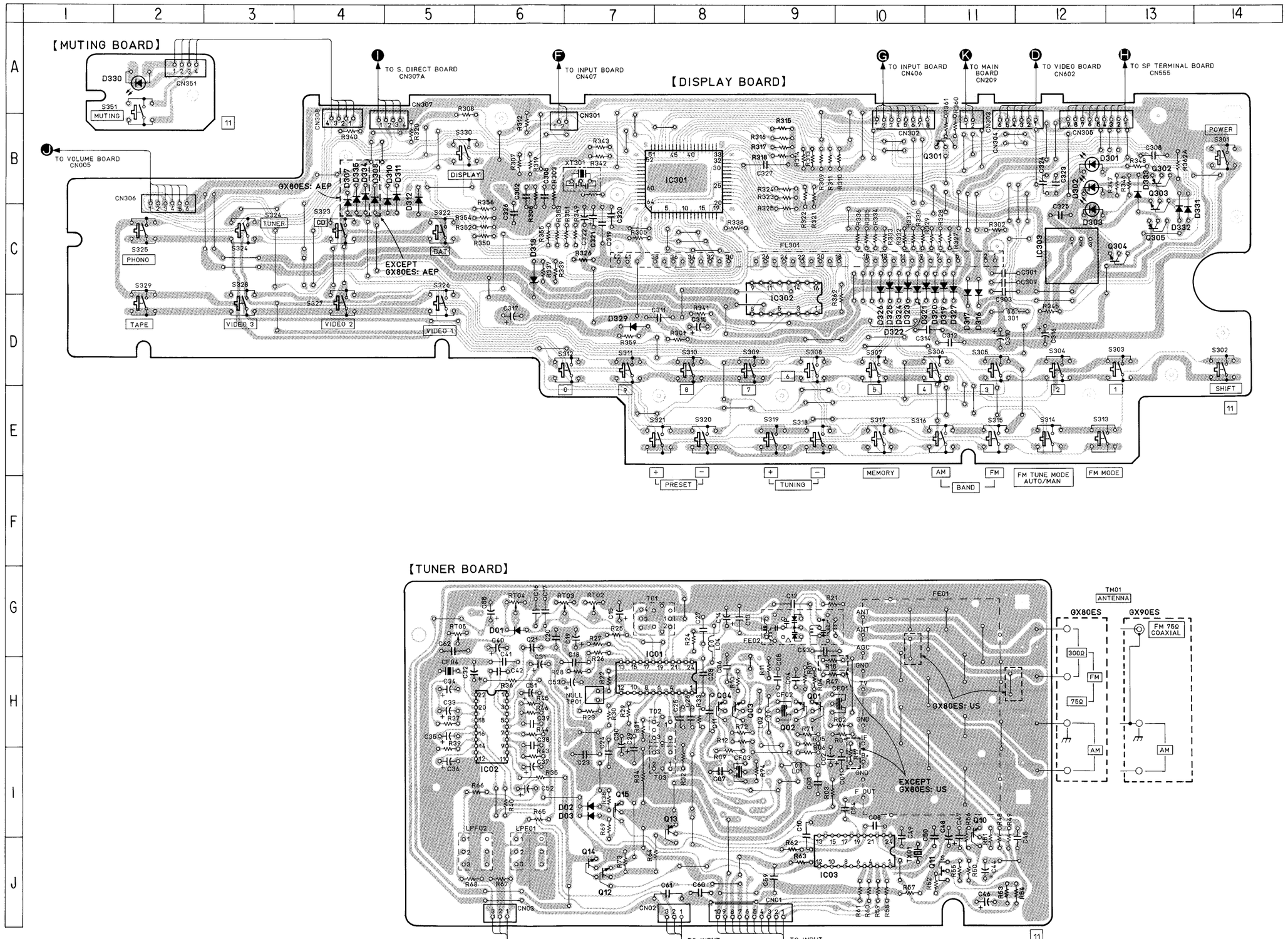
SEL-1810A



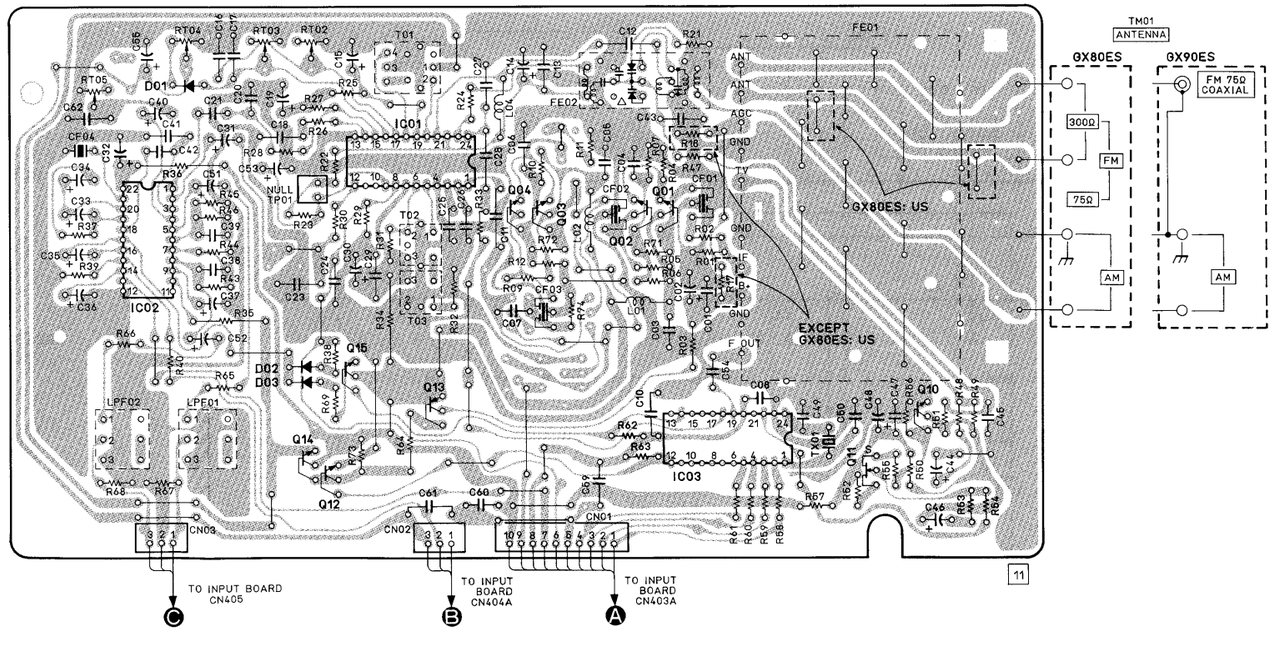
3-7. Printed Wiring Boards – Tuner/Display/Muting Section –

• Semiconductor Location

Ref. No.	Location
D001	G-6
D002	I-7
D003	I-7
D301	B-12
D302	B-12
D303	C-12
D307	B-4
D308	B-4
D310	B-5
D311	B-5
D312	B-5
D316	C-11
D317	C-11
D318	C-6
D319	C-11
D320	C-11
D321	C-11
D322	C-10
D323	C-10
D324	C-10
D325	C-10
D326	C-10
D327	C-11
D329	D-7
D330	A-2
D331	C-13
D332	C-13
D333	B-13
D334	B-4
D335	B-4
IC001	H-8
IC002	H-6
IC003	J-10
IC301	B-8
IC302	D-9
IC303	C-12
Q001	H-9
Q002	H-9
Q003	H-8
Q004	H-8
Q010	I-11
Q011	J-11
Q012	J-7
Q013	J-8
Q014	J-7
Q015	I-7
Q301	B-11
Q302	B-13
Q303	C-13
Q304	C-13
Q305	C-13



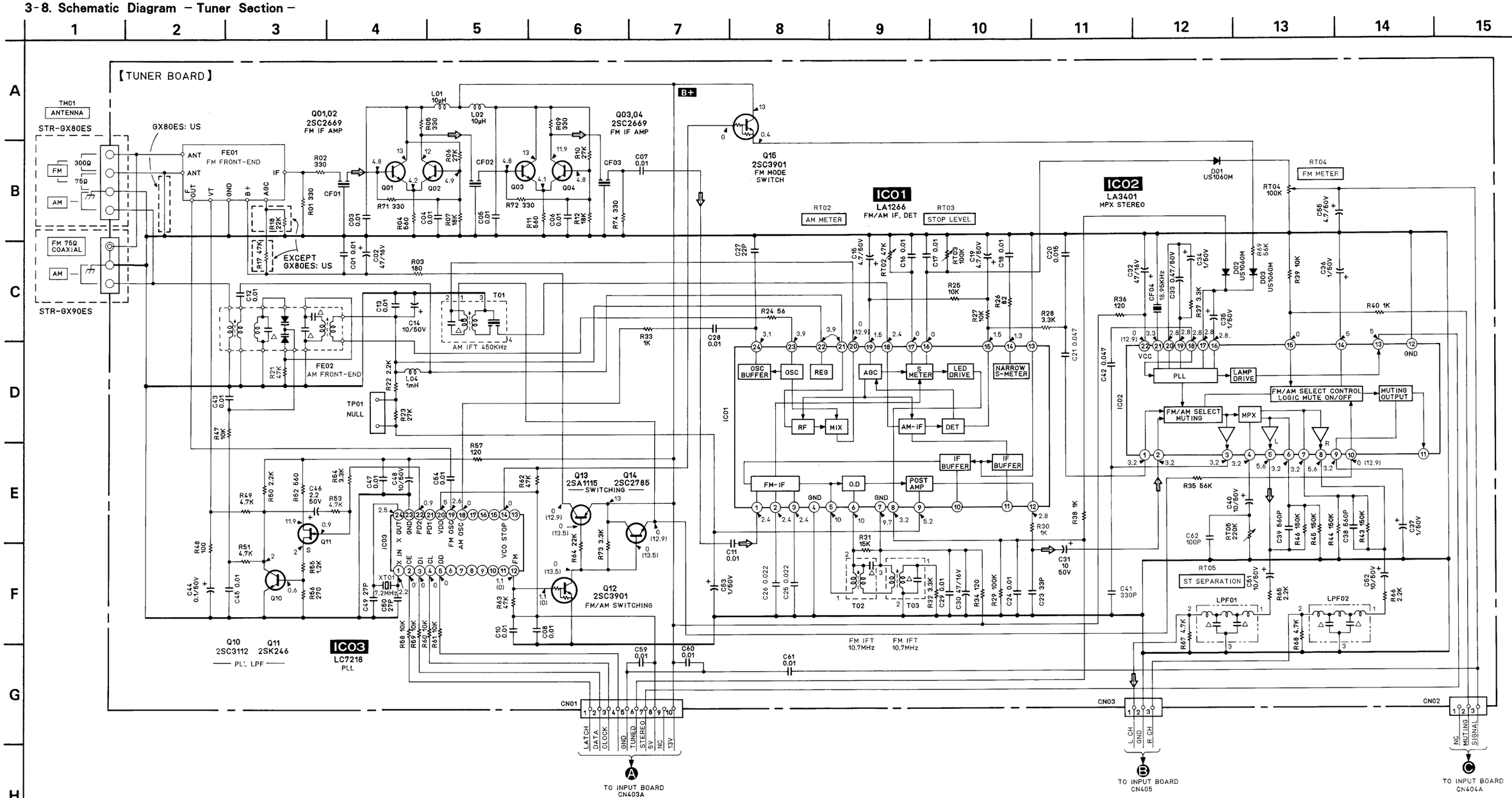
【TUNER BOARD】



Note on Mounting Diagram:

- o—— : parts extracted from the component side.
- ■ : parts mounted on the conductor side.

3-8. Schematic Diagram – Tuner Section –



Note on Schematic Diagram:

- All capacitors are in μF unless otherwise noted. pF: μμF 50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4 W or less unless otherwise specified.
- △ : internal component.
- : nonflammable resistor.
- : fusible resistor.

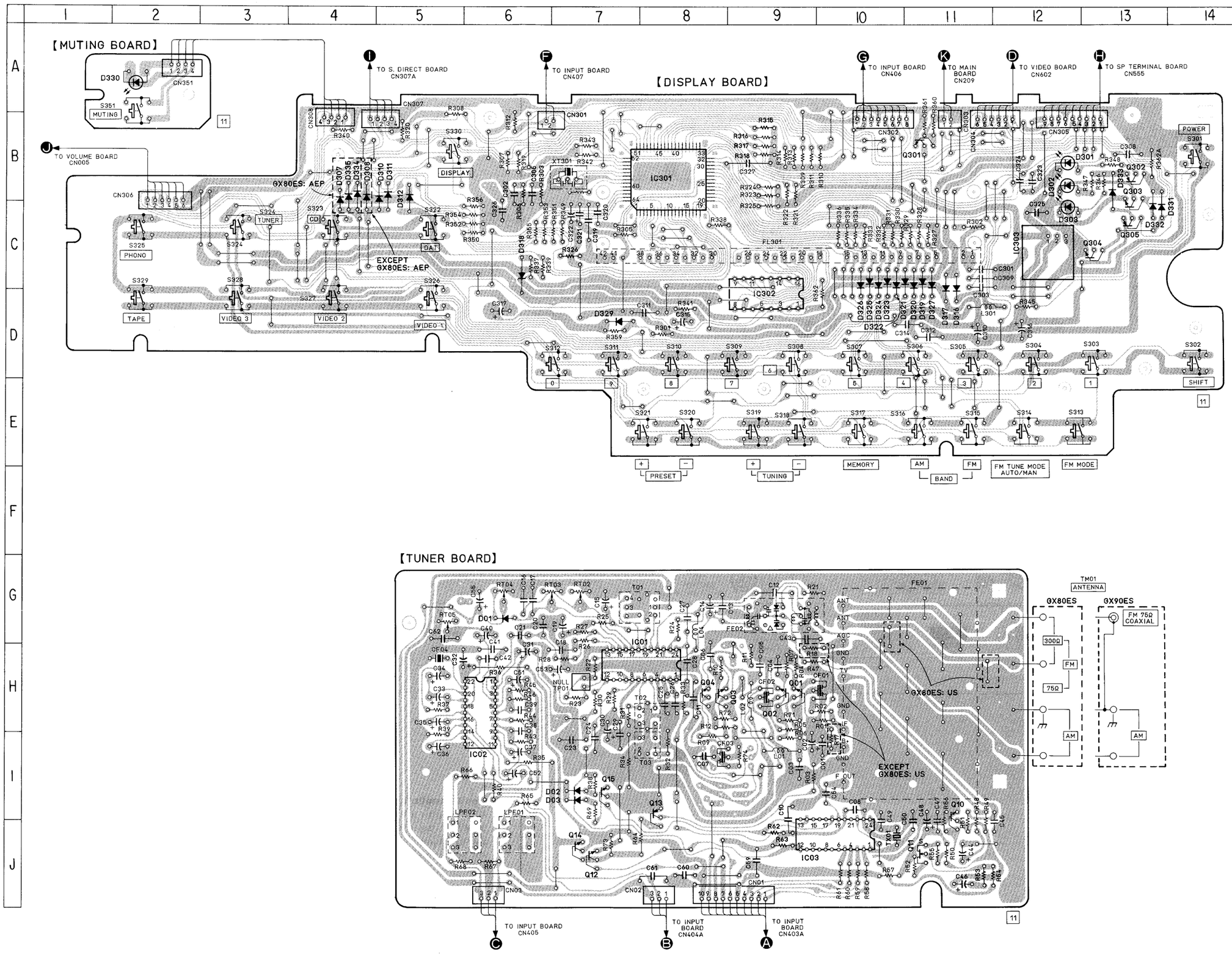
Note:	**Note:**
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

- **B+** : B+ Line
- **B−** : B− Line
- ▭ : adjustment for repair.
- Voltage and waveforms are dc with respect to ground under no-signal conditions.
  no mark : FM
  ( ) : AM
- Voltages are taken with a VOM (Input impedance 10MΩ) Voltage variations may be noted due to normal production tolerances.
- Signal path.
  ⇨ : FM

3-9. Printed Wiring Board – Tuner/Display/Muting Section –

• Semiconductor Location

Ref. No.	Location
D001	G-6
D002	I-7
D003	I-7
D301	B-12
D302	B-12
D303	C-12
D307	B-4
D308	B-4
D310	B-5
D311	B-5
D312	B-5
D316	C-11
D317	C-11
D318	C-6
D319	C-11
D320	C-11
D321	C-11
D322	C-10
D323	C-10
D324	C-10
D325	C-10
D326	C-10
D327	C-11
D329	D-7
D330	A-2
D331	C-13
D332	C-13
D333	B-13
D334	B-4
D335	B-4
IC001	H-8
IC002	H-6
IC003	J-10
IC301	B-8
IC302	D-9
IC303	C-12
Q001	H-9
Q002	H-9
Q003	H-8
Q004	H-8
Q010	I-11
Q011	J-11
Q012	J-7
Q013	J-8
Q014	J-7
Q015	I-7
Q301	B-11
Q302	B-13
Q303	C-13
Q304	C-13
Q305	C-13



Note on Mounting Diagram:

- o—— : parts extracted from the component side.
- ■ : parts mounted on the conductor side.

3-10. Schematic Diagram – Display/Muting Section –

• See page 18 for note.

【DISPLAY BOARD】

【MUTING BOARD】

FL301 INDICATOR TUBE, FLUORESCENT

IC301
UPD75206G-557-1B
SYSTEM CONTROL

IC302
LB1494
INDICATOR DRIVE

IC303
A1QH3020S
REMOTE CONTROL RECEIVER

Q301 2SC3399 SWITCHING

D331-333 US1060M

Q303,304 2SC3399 Q305 2SA1346 Q302 2SA1511 — SWITCHING

D303 SEL2810A-C (VIDEO 3)
D302 SEL2810A-C (VIDEO 2)
D301 SEL2810A-C (VIDEO 1)
D330 SEL2810A-C (MUTING)

D316,317,329 US1060M

D307,308,310-312,319-326 US1060M

EXCEPT GX80ES : AEP

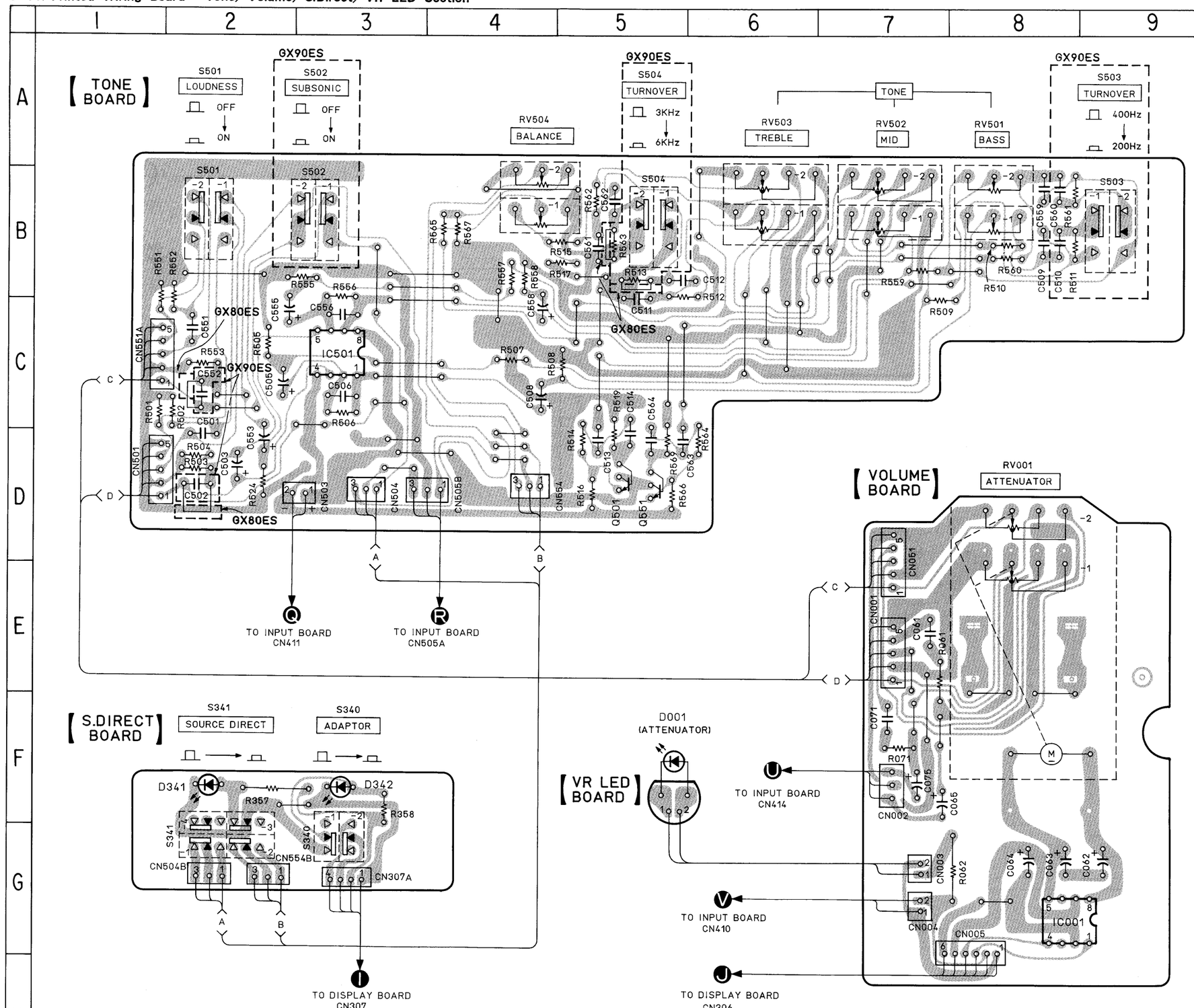
GX80ES : AEP

TO MAIN BOARD CN209
TO INPUT BOARD CN407
TO INPUT BOARD CN406
TO VIDEO BOARD CN602
TO S.DIRECT BOARD CN307A
TO VOLUME BOARD CN005
TO SP TERMINAL BOARD CN555

3-11. Printed Wiring Board – Tone/Volume/S.Direct/VR LED Section –

• Semiconductor Location

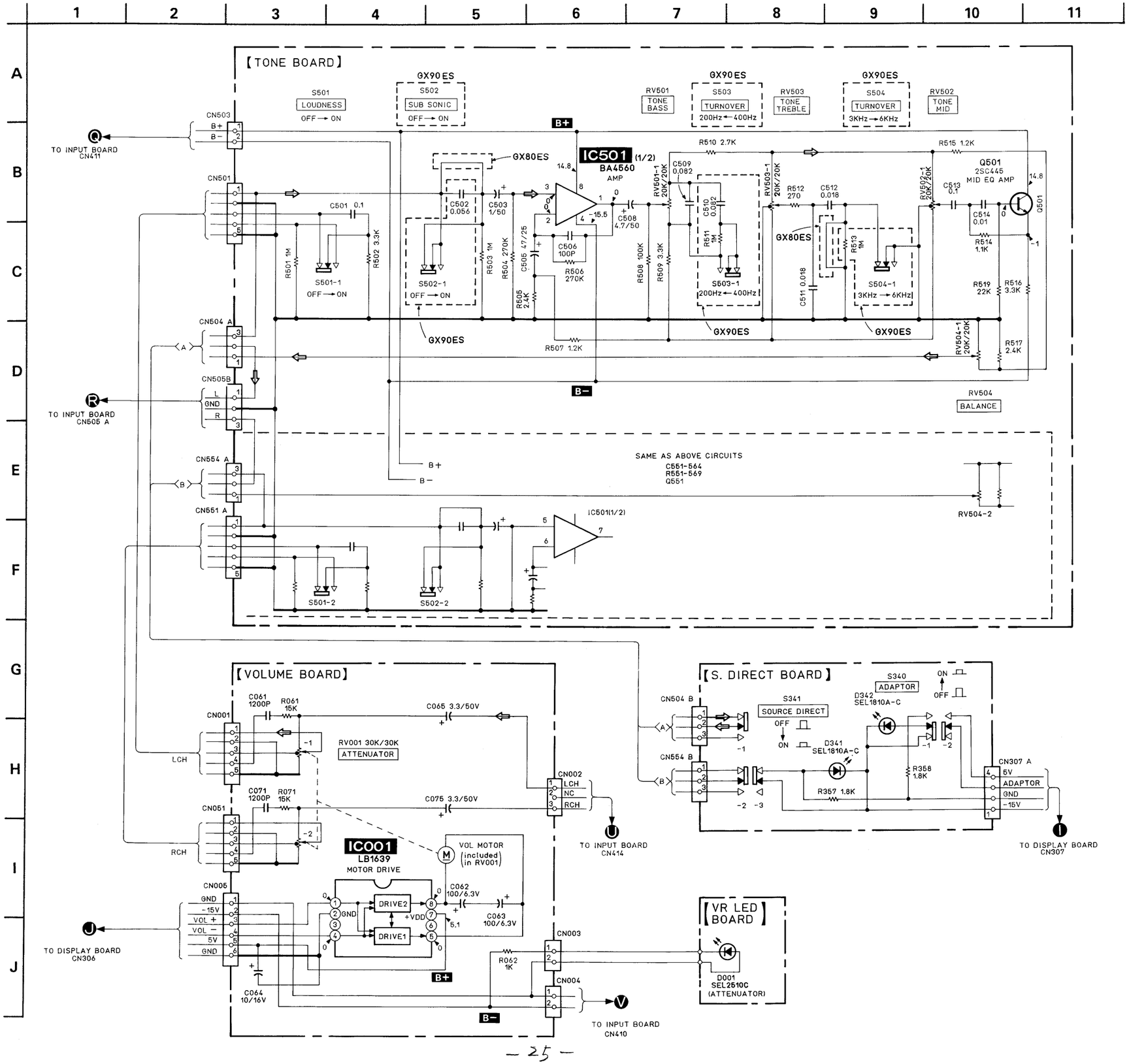
Ref. No.	Location
D001	F-5
D341	F-2
D342	F-3
IC501	C-3
Q501	D-5
Q551	D-5



Note on Mounting Diagram:

- ○—— : parts extracted from the component side.
- ■ : parts mounted on the conductor side.

3-12. Schematic Diagram – Tone/Volume/S.Direct/VR LED Section –



Note on Schematic Diagram:

- All capacitors are in μF unless otherwise noted. pF: μμF 50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4W or less unless otherwise specified.
- △ : internal component.
- : nonflammable resistor.
- : fusible resistor.

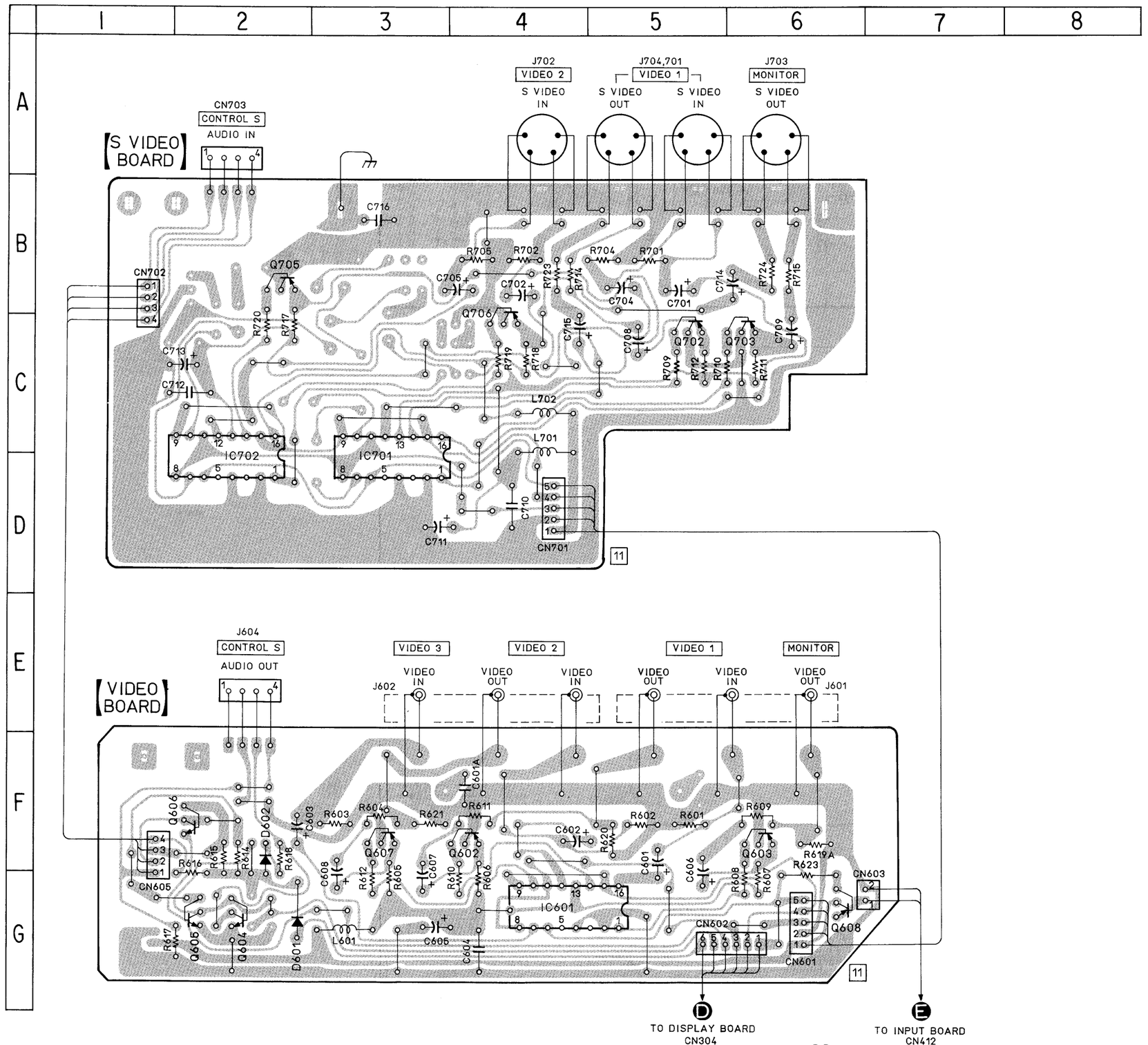
Note: The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	**Note:** Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

- B+ : B+ Line
- B− : B− Line
- : adjustment for repair.
- Voltage and waveforms are dc with respect to ground under no-signal conditions.
  no mark : FM
  ( ) : AM
- Voltages are taken with a VOM (Input impedance 10M Ω) Voltage variations may be noted due to normal production tolerances.
- Signal path.
  ⇨ : FM

3-13. Printed Wiring Board – S Video/Video Section –

• Semiconductor Location

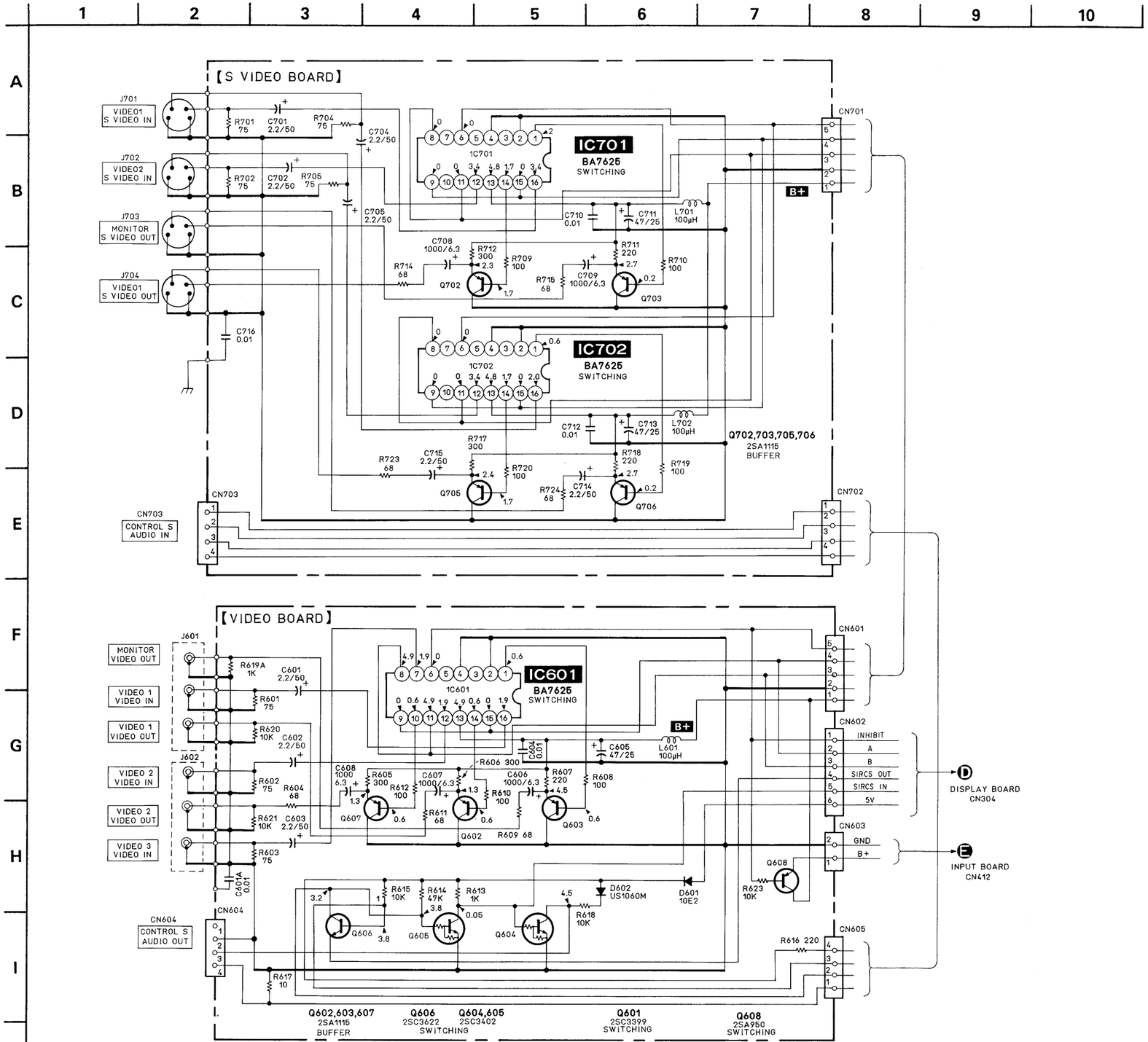
Ref. No.	Location
D601	G-2
D602	F-2
D603	F-2
IC601	G-4
IC701	D-3
IC702	D-2
Q601	G-2
Q602	F-4
Q603	F-6
Q604	G-2
Q605	G-2
Q606	F-2
Q607	F-3
Q608	G-6
Q702	C-5
Q703	C-6
Q705	B-2
Q706	C-4



Note on Mounting Diagram:

- ○—— : parts extracted from the component side.
- ■ : parts mounted on the conductor side.

3-14. Schematic Diagram – S Video/Video Section –



Note on Schematic Diagram:

- All capacitors are in μF unless otherwise noted. pF: μμF 50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4W or less unless otherwise specified.
- △ : internal component.
- : nonflammable resistor.
- : fusible resistor.

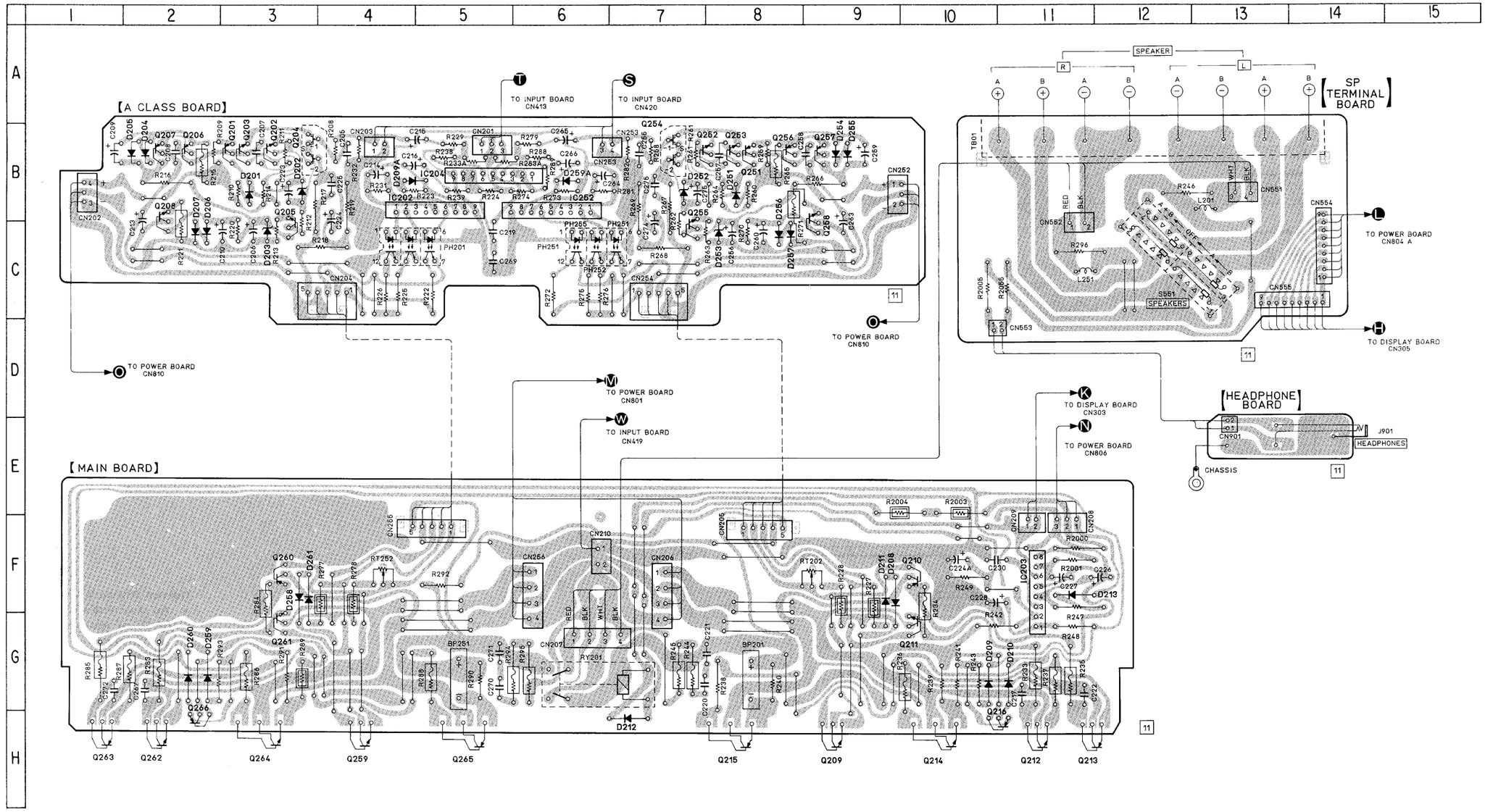
Note:	Note:
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

- B+ : B+ Line
- B− : B− Line
- : adjustment for repair.
- Voltage and waveforms are dc with respect to ground under no-signal conditions.
  no mark : FM
  ( ) : AM
- Voltages are taken with a VOM (Input impedance 10MΩ) Voltage variations may be noted due to normal production tolerances.
- Signal path.
  ⇨ : FM

3-15. Printed Wiring Board – A Class Section –

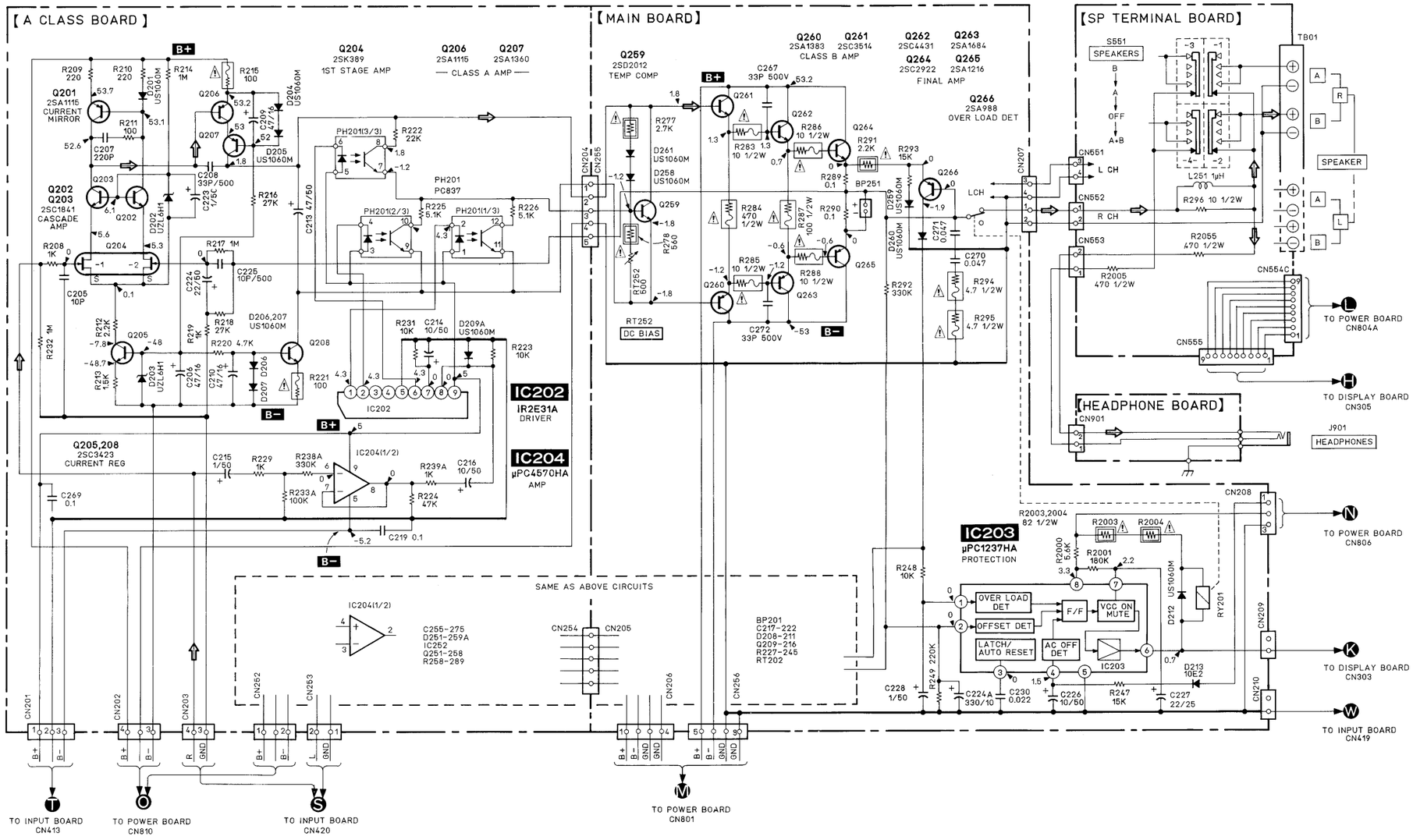
• Semiconductor Location

Ref. No.	Location
D201	B-3
D202	B-3
D203	C-3
D204	B-2
D205	B-2
D206	C-2
D207	C-2
D208	F-9
D209	G-10
D209A	B-4
D210	G-11
D211	F-9
D212	H-7
D213	F-11
D251	B-8
D252	B-7
D253	C-8
D254	B-9
D255	B-9
D256	C-8
D257	C-8
D258	F-3
D259	G-2
D259A	B-6
D260	G-2
D261	F-3
IC202	B-5
IC203	F-11
IC204	B-5
IC252	B-6
Q201	B-3
Q202	B-3
Q203	B-3
Q204	B-3
Q205	B-3
Q206	B-2
Q207	B-2
Q208	C-2
Q209	H-9
Q210	F-10
Q211	G-10
Q212	H-11
Q213	H-11
Q214	H-10
Q215	H-8
Q216	H-11
Q251	B-8
Q252	B-8
Q253	B-8
Q254	B-7
Q255	C-7
Q256	B-8
Q257	B-9
Q258	C-9
Q259	H-4
Q260	F-3
Q261	G-3
Q262	H-2
Q263	H-1
Q264	H-3
Q265	H-5
Q266	H-2



Note on Mounting Diagram:

- o—— : parts extracted from the component side.
- ■ : parts mounted on the conductor side.



Note on Schematic Diagram:

- All capacitors are in µF unless otherwise noted. pF: µµF 50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4 W or less unless otherwise specified.
- △ : internal component.
- : nonflammable resistor.
- : fusible resistor.

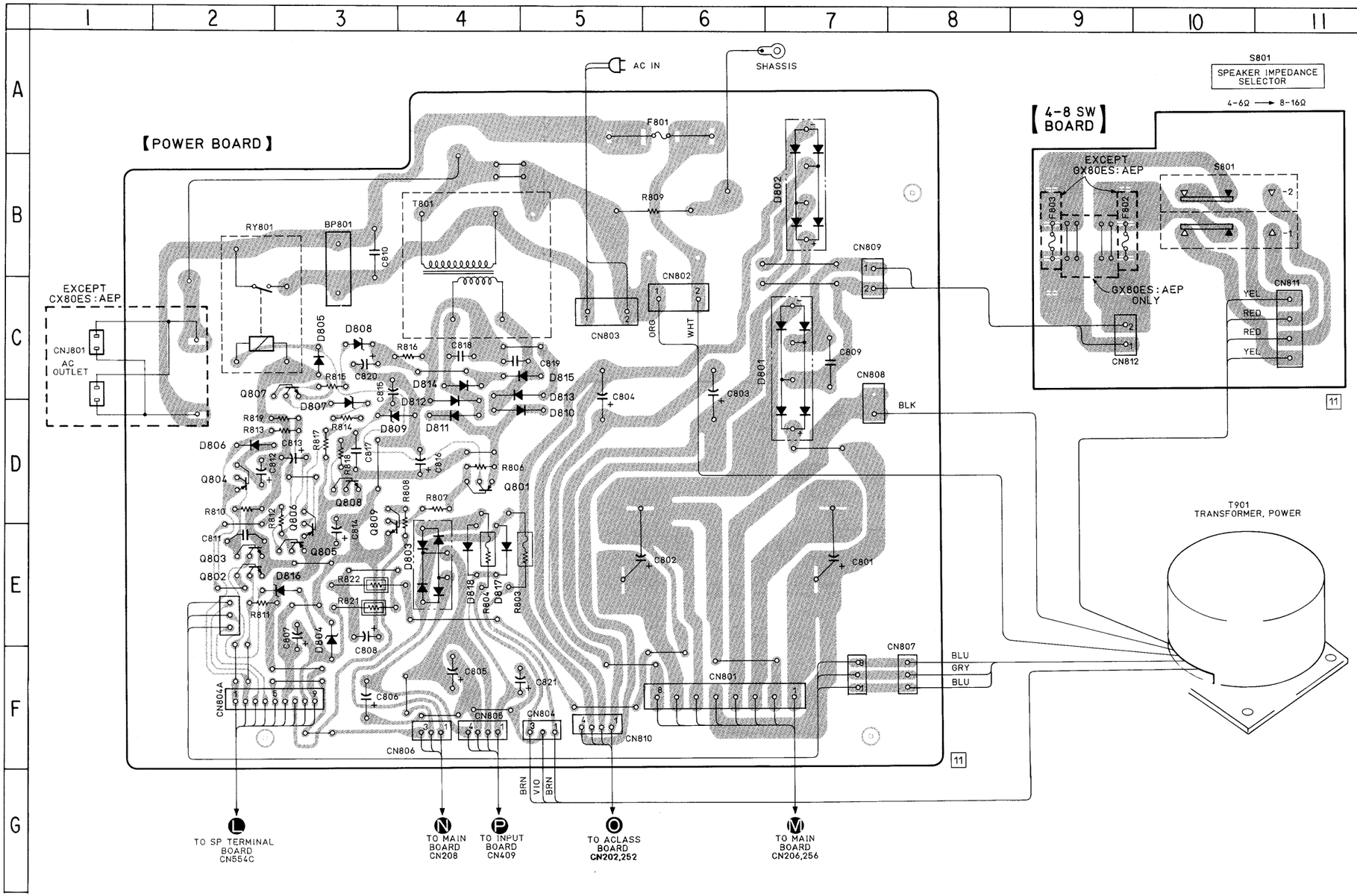
Note: The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	**Note:** Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

- B+ : B + Line
- B – : B – Line
- : adjustment for repair.
- Voltage and waveforms are dc with respect to ground under no-signal conditions.
  no mark : FM
  ( ) : AM
- Voltages are taken with a VOM (Input impedance 10M Ω) Voltage variations may be noted due to normal production tolerances.
- Signal path.
  ⇨ : FM

3-17. Printed Wiring Board – Power/4-8 SW Section –

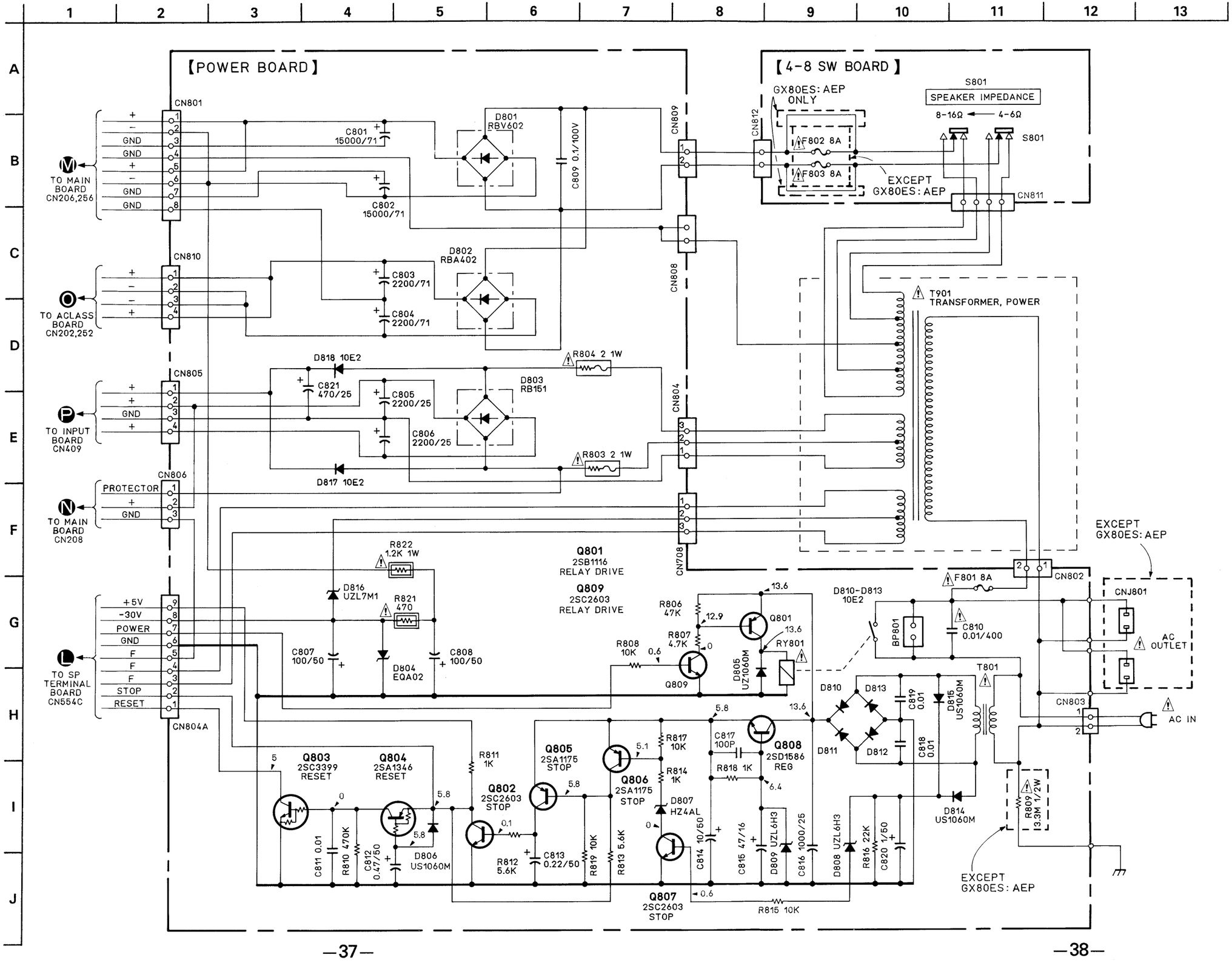
• Semiconductor Location

Ref. No.	Location
D801	C-7
D802	B-7
D803	E-4
D804	E-3
D805	C-3
D806	D-2
D807	D-3
D808	C-3
D809	D-3
D810	D-5
D811	D-4
D812	D-4
D813	C-5
D814	C-4
D815	C-5
D816	E-3
D817	E-4
D818	E-4
Q801	D-4
Q802	E-2
Q803	E-2
Q804	D-2
Q805	E-3
Q806	E-3
Q807	C-3
Q808	D-3
Q809	E-3



Note on Mounting Diagram:

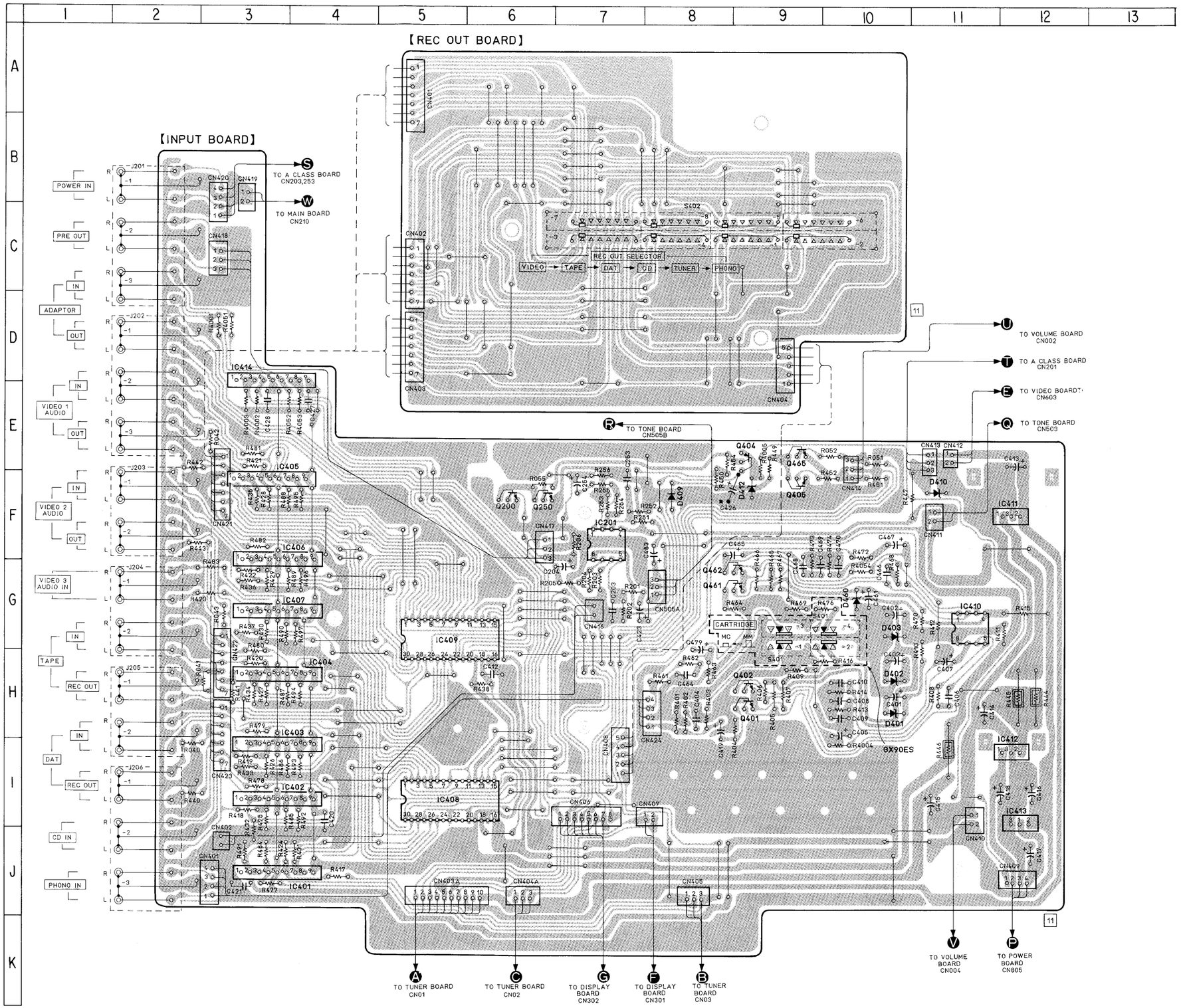
- o—— : parts extracted from the component side.
- ■ : parts mounted on the conductor side.


【POWER BOARD】
【4-8 SW BOARD】
CN801
CN810
CN805
CN806
CN804A
CN809
CN808
CN804
CN708
CN812
CN811
CN802
CNJ801
CN803
TO MAIN BOARD CN206,256
TO ACLASS BOARD CN202,252
TO INPUT BOARD CN409
TO MAIN BOARD CN208
TO SP TERMINAL BOARD CN554C
C801 15000/71
C802 15000/71
C809 0.1/100V
D801 RBV602
C803 2200/71
C804 2200/71
D802 RBA402
D818 10E2
C821 470/25
C805 2200/25
C806 2200/25
D803 RB151
D817 10E2
R804 2 1W
R803 2 1W
R822 1.2K 1W
D816 UZL7M1
R821 470
C807 100/50
D804 EQA02
C808 100/50
Q801 2SB1116 RELAY DRIVE
Q809 2SC2603 RELAY DRIVE
R806 47K
R807 4.7K
R808 10K
D805 UZ1060M
RY801
Q803 2SC3399 RESET
Q804 2SA1346 RESET
R811 1K
Q805 2SA1175 STOP
Q802 2SC2603 STOP
Q806 2SA1175 STOP
Q807 2SC2603 STOP
R817 10K
R814 1K
D807 HZ4AL
C817 100P
R818 1K
Q808 2SD1586 REG
C811 0.01
R810 470K
C812 0.47/50
D806 US1060M
R812 5.6K
C813 0.22/50
R819 10K
R813 5.6K
C814 10/50
C815 47/16
D809 UZL6H3
C816 1000/25
D808 UZL6H3
R816 22K
C820 1/50
R815 10K
S801
SPEAKER IMPEDANCE
8-16Ω ← 4-6Ω
F802 8A
F803 8A
EXCEPT GX80ES: AEP
GX80ES: AEP ONLY
T901 TRANSFORMER, POWER
F801 8A
BP801
C810 0.01/400
AC OUTLET
AC IN
T801
D810 D811 D812 D813
C819 0.01
C818 0.01
D815 US1060M
D814 US1060M
R809 13.3M 1/2W
EXCEPT GX80ES: AEP
D810-D813 10E2
+5V
-30V
POWER
GND
F
F
F
STOP
RESET
PROTECTOR
+
GND

3-19. Printed Wiring Board – Input/REC Out Section –

• Semiconductor Location

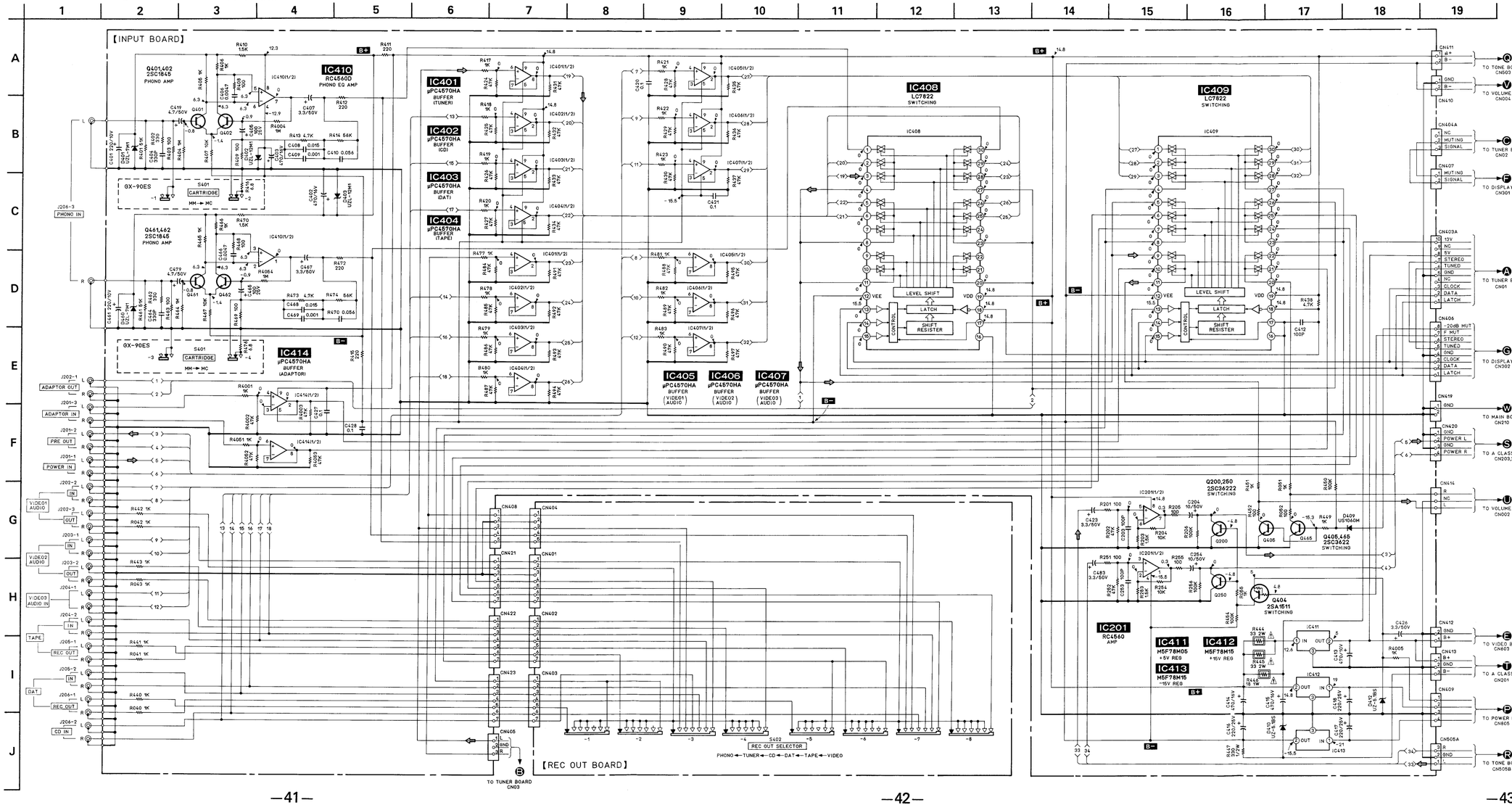
Ref. No.	Location
D401	H-10
D402	H-10
D403	G-10
D409	F-8
D410	F-11
D412	F-9
D460	G-10
IC201	F-7
IC401	J-3
IC402	I-3
IC403	I-3
IC404	H-3
IC405	F-3
IC406	F-3
IC407	G-3
IC408	I-5
IC409	G-5
IC410	G-11
IC411	F-12
IC412	I-12
IC413	I-12
IC414	D-3
Q200	F-6
Q250	F-6
Q401	H-9
Q402	H-9
Q404	E-9
Q405	F-9
Q461	G-8
Q462	G-8
Q465	E-9



Note on Mounting Diagram:

- o—— : parts extracted from the component side.
- ■ : parts mounted on the conductor side.

3-20. Schematic Diagram – Input/REC Out Section –



Note on Schematic Diagram:

- All capacitors are in μF unless otherwise noted. pF: μμF 50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4W or less unless otherwise specified.
- △ : internal component.
- ⏦ : nonflammable resistor.
- ⏦ : fusible resistor.

Note:	**Note:**
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

- **B+** : B+ Line
- **B−** : B− Line
- ▭ : adjustment for repair.
- Voltage and waveforms are dc with respect to ground under no-signal conditions.
  no mark : FM
  ( ) : AM
- Voltages are taken with a VOM (Input impedance 10M Ω)
  Voltage variations may be noted due to normal production tolerances.
- Signal path.
  ⇨ : FM

SECTION 4
EXPLODED VIEWS

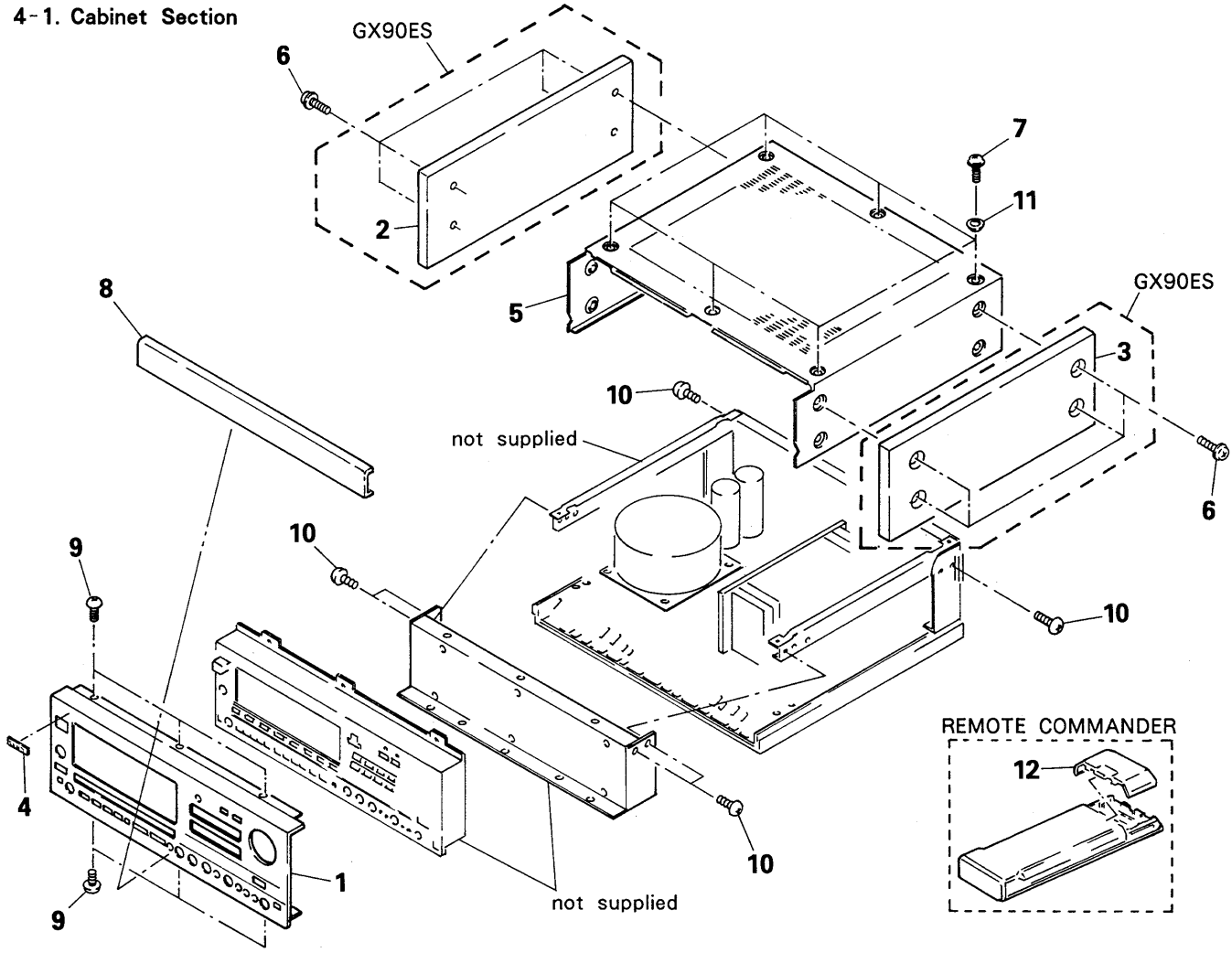
NOTE:

- The mechanical parts with no reference number in the exploded views are not supplied.
- The construction parts of an assembled part are indicated with a collation number in the remark column.
- Items marked "★" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- Due to standardization, parts with part number suffix -XX and -X may be different from the parts specified in the components used on the set.
- Color Indication of Appearance Parts
  Example:
  (RED) . . . KNOB, BALANCE (WHITE)
  ↑ ↑
  Cabinet's Color Parts' Color

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

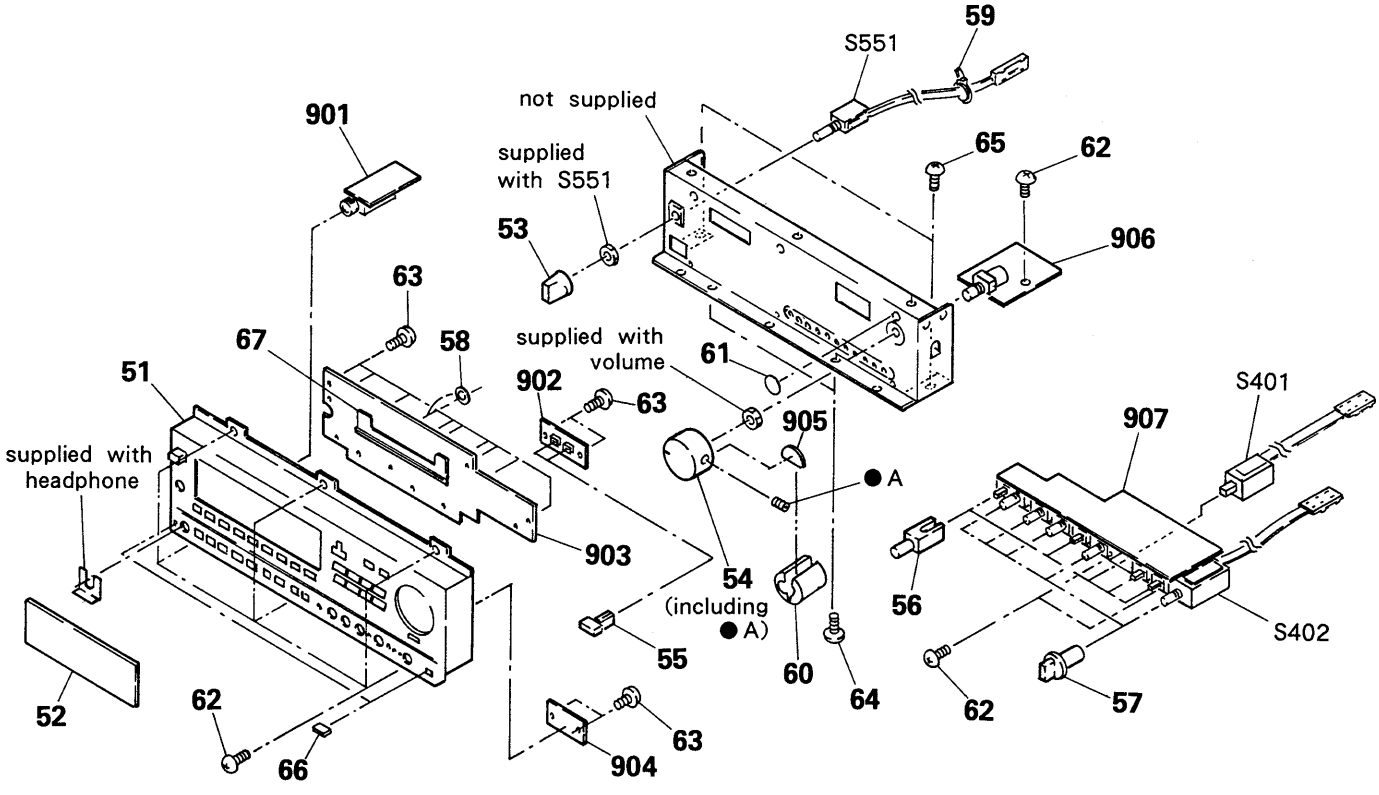
Les composants identifiés par une marque ⚠ sont critiques pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifé.

4-1. Cabinet Section



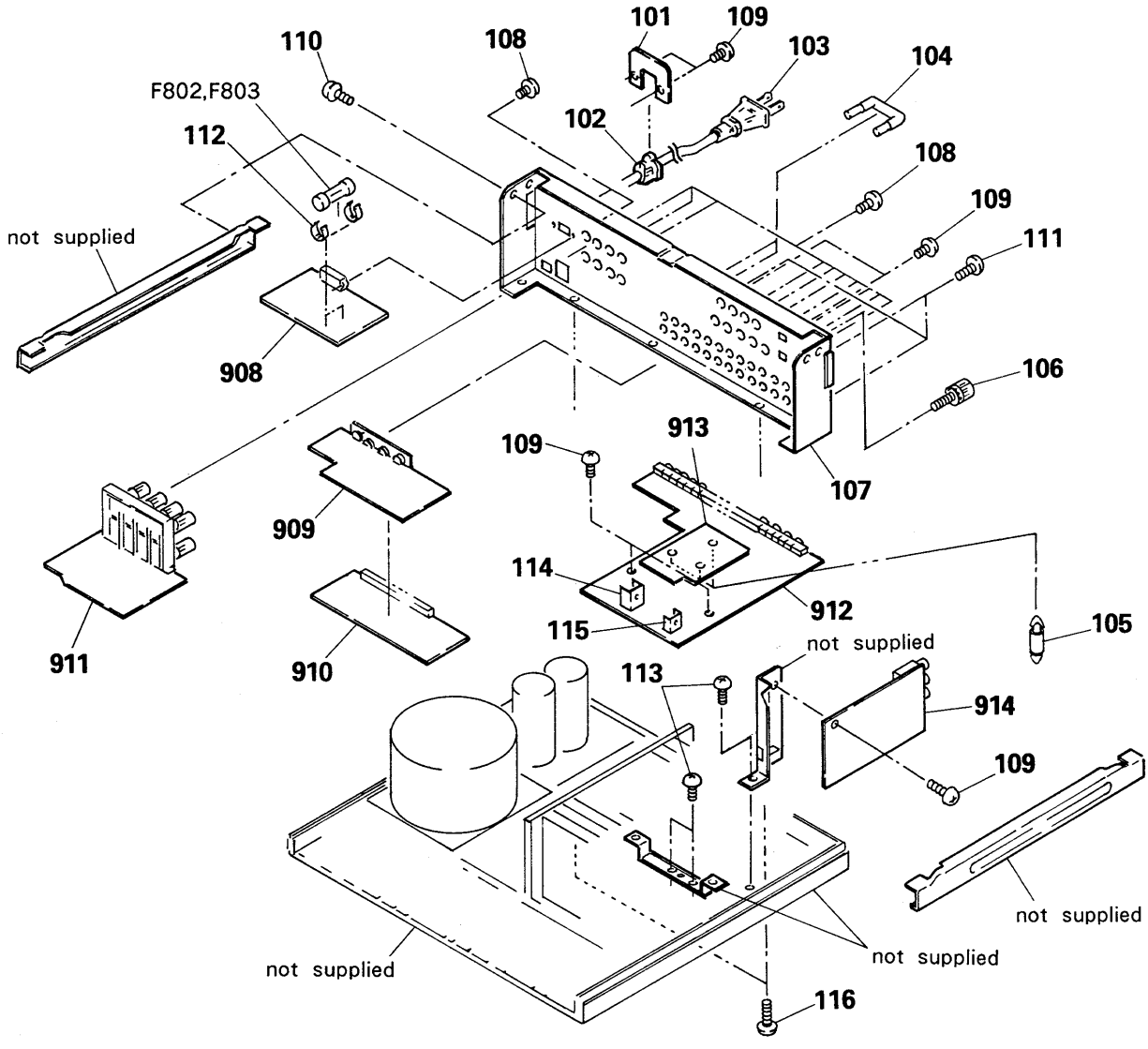
No.	Part No.	Description	Remarks
1	A-4323-519-A	(GX90ES)...PANEL ASSY, FRONT	
	A-4323-525-A	(GX80ES)...PANEL ASSY, FRONT	
2	X-4885-957-1	(GX90ES)...PANEL (LEFT) ASSY, SIDE	
3	X-4885-958-1	(GX90ES)...PANEL (RIGHT) ASSY, SIDE	
4	4-908-848-01	EMBLEM, SONY	
5	*4-931-944-12	CASE	
6	4-885-979-11	(GX90ES)...SCREW (4X25)	
	4-847-802-00	(GX80ES)...SCREW	
7	3-704-366-01	SCREW (CASE) (M3X8)	
8	A-4323-523-A	(GX90ES)...LID ASSY	
	A-4323-528-A	(GX80ES)...LID ASSY	
10	7-682-547-09	SCREW +B 3X6	
11	4-923-474-01	RING, ORNAMENTAL	
12	4-925-079-01	COVER (6), BATTERY	

4-2. Front Panel Section



No.	Part No.	Description	Remarks
51	X-4924-924-1	PANEL (BASE) ASSY	
52	4-931-657-01	WINDOW, DISPLAY	
53	4-908-097-21	KNOB	
54	X-4924-923-1	KNOB ASSY	
55	4-931-642-01	BUTTON	
56	4-931-641-01	BUTTON (DIA. 4)	
57	3-346-380-21	KNOB (VOL)	
58	*3-555-872-21	SPACER	
59	3-655-653-21	BAND (TAITON), BINDING	
60	*4-901-919-00	HOUSE, LED LAMP	
61	*4-908-892-01	SPACER	
62	7-682-547-09	SCREW +BVTT 3X6 (S)	
63	7-685-646-79	SCREW +BVTP 3X8 TYPE2 N-S	
64	7-685-873-09	SCREW +BVTT 3X10 (S)	
65	7-685-647-79	SCREW +BVTP 3X10 TYPE2 SLIT	
66	1-452-419-21	MAGNET	
67	*4-925-125-11	HOLDER, FL TUBE	
901	*1-635-449-11	PC BOARD, HEADPHONE	
902	*1-635-446-11	PC BOARD, S.DIRECT	
903	*A-4334-735-A	MOUNTED PCB, DISPLAY	
904	*1-635-448-11	PC BOARD, MUTING	
906	*1-635-459-11	PC BOARD, VR	
905	*1-635-447-11	PC BOARD, VR LED	
907	*A-4334-730-A	(GX90ES)...MOUNTED PCB, TONE	
	*A-4334-747-A	(GX80ES)...MOUNTED PCB, TONE	
S401	1-554-019-21	(GX90ES)...SWITCH, SLIDE (REMOTE TYPE)(CARTRIDGE)	
S402	1-571-465-11	SWITCH, SLIDE (REC OUT SELECTOR)	
S551	1-570-897-11	SWITCH, SLIDE (REMOTE)(SPEAKERS)	

4-3. Back Panel Section



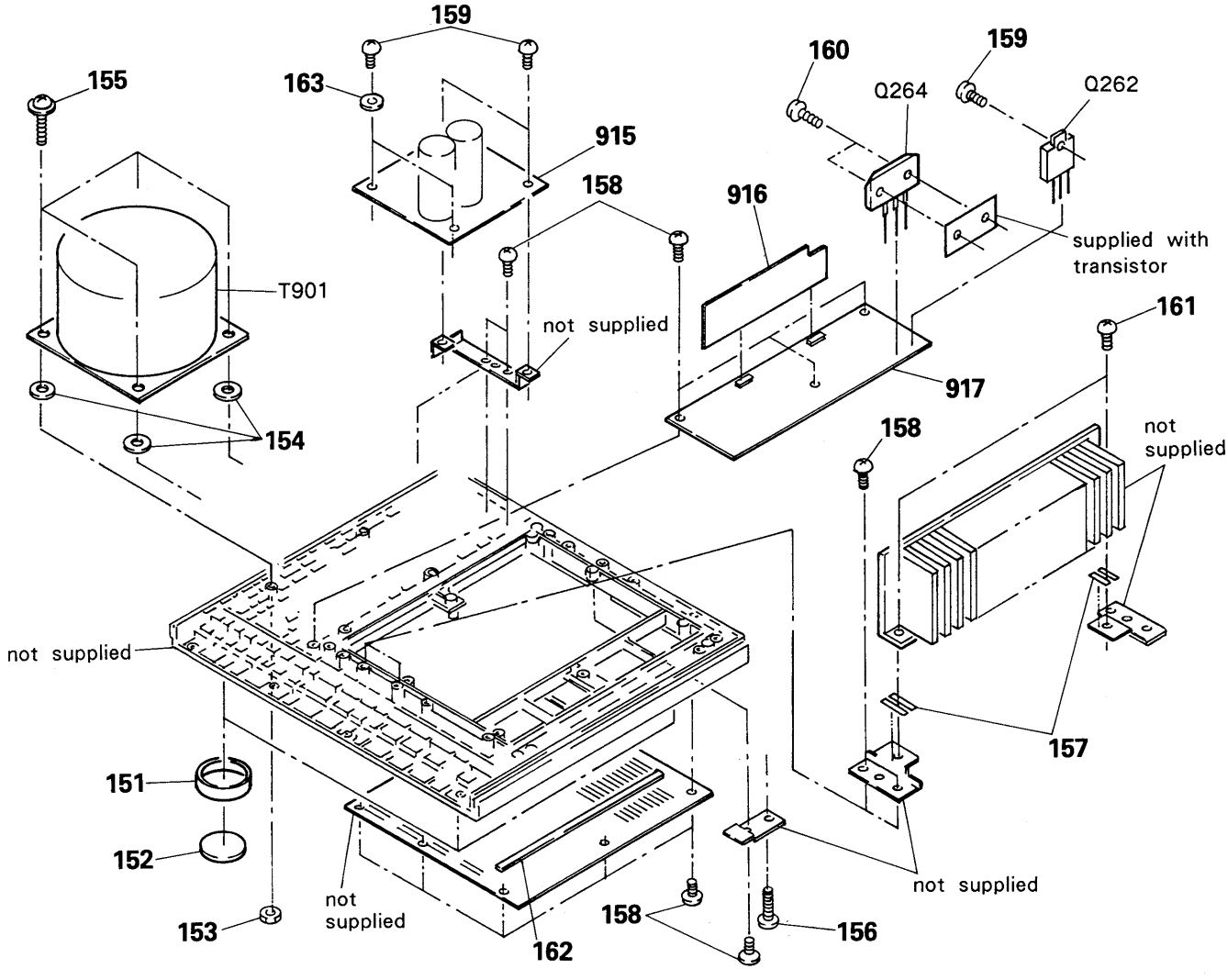
No.	Part No.	Description	Renarks
101	*4-923-873-01	BRACKET, CORD STOPPER	
102	3-703-244-00	(GX80ES)...BUSHING (2104), CORD	
	4-916-783-01	(GX90ES)...BUSHING, CORD	
103	⚠1-559-479-11	(GX90ES).....CORD, POWER	
	⚠1-575-105-11	(GX80ES:US)....CORD, POWER	
	⚠1-575-383-11	(GX80ES:AEP)...CORD, POWER	
104	1-535-706-11	PLUG, JUMPER	
105	*3-682-419-01	HOLDER, P.C.B	
106	3-706-165-00	SCREW	
107	*4-931-638-01	(GX90ES:US).....PANEL, BACK	
	*4-931-638-11	(GX90ES:Canadian)...PANEL, BACK	
	*4-931-639-01	(GX80ES:US).....PANEL, BACK	
	*4-931-639-11	(GX80ES:AEP).....PANEL, BACK	
108	7-685-646-79	SCREW +BVTP 3X8 TYPE2 N-S	
109	7-682-547-09	SCREW +BVTT 3X6 (S)	
110	7-682-547-09	SCREW +B 3X6	

No.	Part No.	Description	Renarks
111	7-621-849-00	SCREW, TAPPING	
112	1-533-183-11	HOLDER, FUSE	
113	7-685-647-79	SCREW +BVTP 3X10 TYPE2 SLIT	
114	*3-309-144-21	HEAT SINK	
115	*4-880-403-11	HEAT SINK	
116	7-685-876-09	SCREW +BVTT 3X16 (S)	
908	*1-635-457-11	PC BOARD, 4-8 SW	
909	*1-635-454-11	PC BOARD, (S) VIDEO	
910	*A-4334-740-A	MOUNTED PCB, VIDEO	
911	*1-635-460-11	PC BOARD, SP TERMINAL	
912	*A-4334-734-A	(GX90ES)...MOUNTED PCB, INPUT	
	*A-4334-749-A	(GX80ES)...MOUNTED PCB, INPUT	
913	*1-635-456-11	PC BOARD, REC OUT	
914	*A-4334-732-A	(GX90ES)...MOUNTED PCB, TUNER	
	*A-4334-748-A	(GX80ES)...MOUNTED PCB, TUNER	

Note:
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

Note:
Les composants identifiés par une marque ⚠ sont critiques pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifié.

4-4. Chassis Section



No.	Part No.	Description	Renarks
151	4-931-967-02	RING, ORNAMENTAL	
152	4-924-963-01	FOOT	
153	7-684-024-04	N 4, TYPE 2	
154	4-931-976-01	WASHER (BS)	
155	7-682-967-01	SCREW +PSW 4X25	
156	7-685-153-19	SCREW +P 3X30 TYPE2 SLIT	
157	*4-931-645-01	SPACER	
158	7-685-647-79	SCREW +BVTP 3X10 TYPE2 SLIT	
159	7-682-547-09	SCREW +BVTT 3X6 (S)	
160	7-682-549-09	SCREW +B 3X10	
161	7-685-873-09	SCREW +BVTT 3X10 (S)	
162	*4-916-782-11	DAMPER	
163	4-890-173-00	WASHER	

No.	Part No.	Description	Renarks
915	*A-4334-743-A	(GX90ES/GX80ES:US)...MOUNTED PCB, POWER	
	*A-4341-055-A	(GX80ES:AEP).....MOUNTED PCB, POWER	
916	*A-4334-741-A	MOUNTED PCB, A CLASS	
917	*A-4334-742-A	MOUNTED PCB, MAIN	
T901	⚠1-450-021-11	(GX90ES).....TRANSFORMER, POWER	
T901	⚠1-450-030-11	(GX80ES:US)....TRANSFORMER, POWER	
T901	⚠1-450-151-11	(GX80ES:AEP)...TRANSFORMER, POWER	

Note:
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

Note:
Les composants identifiés par une marque ⚠ sont critiques pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifié.

SECTION 5
ELECTRICAL PARTS LIST

NOTE:

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- Items marked "★" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- If there are two or more same circuits in a set such as a stereophonic machine, only typical circuit parts may be indicated and capacitors and resistors in other same circuits may be omitted.

CAPACITORS:
MF: μF, PF: μμF.

RESISTORS
- All resistors are in ohms.
- F: nonflammable

COILS
- MMH: mH, UH: μH

SEMICONDUCTORS
In each case, U: μ, for example:
UA...: μA..., UPA...: μPA...,
UPC...: μPC, UPD...: μPD...

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

Les composants identifiés par une marque ⚠ sont critiques pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifié.

Ref.No.	Part No.	Description
901	*1-635-449-11	PC BOARD, HEADPHONE
902	*1-635-446-11	PC BOARD, S.DIRECT
903	*A-4334-735-A	MOUNTED PCB, DISPLAY
904	*1-635-448-11	PC BOARD, MUTING
905	*1-635-447-11	PC BOARD, VR LED
906	*1-635-459-11	PC BOARD, VR
907	*A-4334-730-A	(GX90ES)...MOUNTED PCB, TONE
	*A-4334-747-A	(GX80ES)...MOUNTED PCB, TONE
908	*1-635-457-11	PC BOARD, 4.8 SW
909	*1-635-454-11	PC BOARD, (S) VIDEO
910	*A-4334-740-A	MOUNTED PCB, VIDEO
911	*1-635-460-11	PC BOARD, SP TERMINAL
912	*A-4334-734-A	(GX90ES)...MOUNTED PCB, INPUT
	*A-4334-749-A	(GX80ES)...MOUNTED PCB, INPUT
913	*1-635-456-11	PC BOARD, REC OUT
914	*A-4334-732-A	(GX90ES)...MOUNTED PCB, TUNER
	*A-4334-748-A	(GX80ES)...MOUNTED PCB, TUNER
915	*A-4334-743-A	(GX90ES/GX80ES:US)...MOUNTED PCB, POWER
	*A-4341-055-A	(GX80ES:AEP).....MOUNTED PCB, POWER
916	*A-4334-741-A	MOUNTED PCB, A CLASS
917	*A-4334-742-A	MOUNTED PCB, MAIN
BP201	*1-535-139-00	BASE POST 19MM (10MM PITCH) 2P
BP251	*1-535-139-00	BASE POST 19MM (10MM PITCH) 2P
BP801	*1-535-139-00	BASE POST 19MM (10MM PITCH) 2P

C01	1-161-379-00	CERAMIC	0.01MF	30%	16V
C02	1-124-477-11	ELECT	47MF	20%	16V
C03	1-161-379-00	CERAMIC	0.01MF	30%	16V
C04	1-161-379-00	CERAMIC	0.01MF	30%	16V
C05	1-161-379-00	CERAMIC	0.01MF	30%	16V
C06	1-161-379-00	CERAMIC	0.01MF	30%	16V
C07	1-161-379-00	CERAMIC	0.01MF	30%	16V
C08	1-161-379-00	CERAMIC	0.01MF	30%	16V
C10	1-161-379-00	CERAMIC	0.01MF	30%	16V
C11	1-161-379-00	CERAMIC	0.01MF	30%	16V
C12	1-161-379-00	CERAMIC	0.01MF	30%	16V
C13	1-161-379-00	CERAMIC	0.01MF	30%	16V
C14	1-123-875-11	ELECT	10MF	20%	50V
C15	1-124-927-11	ELECT	4.7MF	20%	50V
C16	1-161-379-00	CERAMIC	0.01MF	30%	16V
C17	1-161-379-00	CERAMIC	0.01MF	30%	16V
C18	1-161-379-00	CERAMIC	0.01MF	30%	16V
C19	1-124-927-11	ELECT	4.7MF	20%	50V

Ref.No.	Part No.	Description			
C20	1-136-155-00	FILM	0.015MF	5%	50V
C21	1-136-161-00	FILM	0.047MF	5%	50V
C23	1-162-211-31	CERAMIC	33PF	5%	50V
C24	1-161-379-00	CERAMIC	0.01MF	30%	16V
C25	1-101-005-00	CERAMIC	0.022MF		50V
C26	1-101-005-00	CERAMIC	0.022MF		50V
C27	1-162-207-31	CERAMIC	22PF	5%	50V
C28	1-161-379-00	CERAMIC	0.01MF	30%	16V
C29	1-161-379-00	CERAMIC	0.01MF	30%	16V
C30	1-124-477-11	ELECT	47MF	20%	16V
C31	1-123-875-11	ELECT	10MF	20%	50V
C32	1-124-477-11	ELECT	47MF	20%	16V
C33	1-124-902-00	ELECT	0.47MF	20%	50V
C34	1-124-791-11	ELECT	1MF	20%	50V
C35	1-124-791-11	ELECT	1MF	20%	50V
C36	1-124-791-11	ELECT	1MF	20%	50V
C37	1-124-791-11	ELECT	1MF	20%	50V
C38	1-130-468-00	MYLAR	560PF	5%	50V
C39	1-130-468-00	MYLAR	560PF	5%	50V
C40	1-123-875-11	ELECT	10MF	20%	50V
C41	1-162-288-31	CERAMIC	330PF	10%	50V
C42	1-136-161-00	FILM	0.047MF	5%	50V
C43	1-161-379-00	CERAMIC	0.01MF	30%	16V
C44	1-124-463-00	ELECT	0.1MF	20%	50V
C45	1-161-379-00	CERAMIC	0.01MF	30%	16V
C46	1-124-257-00	ELECT	2.2MF	20%	50V
C47	1-161-379-00	CERAMIC	0.01MF	30%	16V
C48	1-123-875-11	ELECT	10MF	20%	50V
C49	1-102-961-00	CERAMIC	27PF	5%	50V
C50	1-102-961-00	CERAMIC	27PF	5%	50V
C51	1-123-875-11	ELECT	10MF	20%	50V
C52	1-123-875-11	ELECT	10MF	20%	50V
C53	1-124-791-11	ELECT	1MF	20%	50V
C54	1-161-379-00	CERAMIC	0.01MF	30%	16V
C55	1-124-927-11	ELECT	4.7MF	20%	50V
C59	1-161-379-00	CERAMIC	0.01MF	30%	16V
C60	1-161-379-00	CERAMIC	0.01MF	30%	16V
C61	1-161-379-00	CERAMIC	0.01MF	30%	16V
C62	1-162-282-31	CERAMIC	100PF	10%	50V
C061	1-102-118-81	CERAMIC	0.0012MF	10%	50V
C062	1-124-994-11	ELECT	100MF	20%	6.3V
C063	1-124-994-11	ELECT	100MF	20%	6.3V
C064	1-126-157-11	ELECT	10MF	20%	16V
C065	1-123-382-00	ELECT	3.3MF	20%	50V
C071	1-102-118-81	CERAMIC	0.0012MF	10%	50V

Ref.No.	Part No.	Description			
C075	1-123-382-00	ELECT	3.3MF	20%	50V
C203	1-162-282-31	CERAMIC	100PF	10%	50V
C204	1-126-059-11	ELECT	10MF	20%	50V
C205	1-162-199-31	CERAMIC	10PF	5%	50V
C206	1-126-022-11	ELECT	47MF	20%	16V
C207	1-162-286-31	CERAMIC	220PF	10%	50V
C208	1-107-159-00	MICA	33PF	5%	500V
C209	1-126-022-11	ELECT	47MF	20%	16V
C210	1-126-022-11	ELECT	47MF	20%	16V
C213	1-126-051-11	ELECT	47MF	20%	50V
C214	1-126-059-11	ELECT	10MF	20%	50V
C215	1-126-044-11	ELECT	1MF	20%	50V
C216	1-126-059-11	ELECT	10MF	20%	50V
C217	1-107-159-00	MICA	33PF	5%	500V
C219	1-136-165-00	FILM	0.1MF	5%	50V
C220	1-136-161-00	FILM	0.047MF	5%	50V
C221	1-136-161-00	FILM	0.047MF	5%	50V
C222	1-107-159-00	MICA	33PF	5%	500V
C223	1-126-044-11	ELECT	1MF	20%	50V
C224A	1-126-025-11	ELECT	330MF	20%	10V
C224	1-126-049-11	ELECT	22MF	20%	50V
C225	1-107-202-00	MICA	10PF	0.5PF	500V
C226	1-126-059-11	ELECT	10MF	20%	50V
C227	1-126-049-11	ELECT	22MF	20%	25V
C228	1-126-044-11	ELECT	1MF	20%	50V
C230	1-136-157-00	FILM	0.022MF	5%	50V
C253	1-162-282-31	CERAMIC	100PF	10%	50V
C254	1-126-059-11	ELECT	10MF	20%	50V
C255	1-162-199-31	CERAMIC	10PF	5%	50V
C256	1-126-022-11	ELECT	47MF	20%	16V
C257	1-162-286-31	CERAMIC	220PF	10%	50V
C258	1-107-159-00	MICA	33PF	5%	500V
C259	1-126-022-11	ELECT	47MF	20%	16V
C260	1-126-022-11	ELECT	47MF	20%	16V
C263	1-126-051-11	ELECT	47MF	20%	50V
C264	1-126-059-11	ELECT	10MF	20%	50V
C265	1-126-044-11	ELECT	1MF	20%	50V
C266	1-126-059-11	ELECT	10MF	20%	50V
C267	1-107-159-00	MICA	33PF	5%	500V
C269	1-136-165-00	FILM	0.1MF	5%	50V
C270	1-136-161-00	FILM	0.047MF	5%	50V
C271	1-136-161-00	FILM	0.047MF	5%	50V
C272	1-107-159-00	MICA	33PF	5%	500V
C273	1-126-044-11	ELECT	1MF	20%	50V
C274	1-126-049-11	ELECT	22MF	20%	50V
C275	1-107-202-00	MICA	10PF	0.5PF	500V
C301	1-161-379-00	CERAMIC	0.01MF	30%	16V
C302	1-161-379-00	CERAMIC	0.01MF	30%	16V
C303	1-161-379-00	CERAMIC	0.01MF	30%	16V
C305	1-161-379-00	CERAMIC	0.01MF	30%	16V
C308	1-161-379-00	CERAMIC	0.01MF	30%	16V
C309	1-161-379-00	CERAMIC	0.01MF	30%	16V
C310	1-124-438-00	ELECT	1MF	20%	50V
C311	1-161-379-00	CERAMIC	0.01MF	30%	16V
C312	1-161-379-00	CERAMIC	0.01MF	30%	16V
C314	1-161-379-00	CERAMIC	0.01MF	30%	16V
C315	1-124-438-00	ELECT	1MF	20%	50V

Ref.No.	Part No.	Description			
C316	1-123-875-11	ELECT	10MF	20%	50V
C317	1-125-445-11	DOUBLE LAYERS	0.22F		5.5V
C319	1-161-494-00	CERAMIC	0.022MF		25V
C320	1-161-379-00	CERAMIC	0.01MF	30%	16V
C321	1-161-379-00	CERAMIC	0.01MF	30%	16V
C322	1-126-177-11	ELECT	100MF	20%	6.3V
C323	1-136-165-00	FILM	0.1MF	5%	50V
C324	1-136-165-00	FILM	0.1MF	5%	50V
C325	1-161-379-00	CERAMIC	0.01MF	30%	16V
C327	1-161-379-00	CERAMIC	0.01MF	30%	16V
C401	1-124-995-11	ELECT	220MF	20%	10V
C402	1-126-012-11	ELECT	470MF	20%	16V
C403	1-126-012-11	ELECT	470MF	20%	16V
C404	1-110-341-11	MYLAR	330PF	5%	50V
C405	1-126-023-11	ELECT	100MF	20%	25V
C406	1-130-479-00	MYLAR	0.0047MF	5%	50V
C407	1-126-046-11	ELECT	3.3MF	20%	50V
C408	1-136-155-00	FILM	0.015MF	5%	50V
C409	1-130-471-00	MYLAR	0.001MF	5%	50V
C410	1-136-162-00	FILM	0.056MF	5%	50V
C412	1-162-282-31	CERAMIC	100PF	10%	50V
C413	1-124-997-11	ELECT	470MF	20%	10V
C414	1-126-012-11	ELECT	470MF	20%	16V
C415	1-126-012-11	ELECT	470MF	20%	16V
C416	1-126-024-11	ELECT	220MF	20%	25V
C417	1-126-024-11	ELECT	220MF	20%	25V
C418	1-126-024-11	ELECT	220MF	20%	25V
C419	1-124-927-11	ELECT	4.7MF	20%	50V
C420	1-164-159-11	CERAMIC	0.1MF		50V
C421	1-164-159-11	CERAMIC	0.1MF		50V
C423	1-126-046-11	ELECT	3.3MF	20%	50V
C426	1-126-046-11	ELECT	3.3MF	20%	50V
C427	1-164-159-11	CERAMIC	0.1MF		50V
C428	1-164-159-11	CERAMIC	0.1MF		50V
C461	1-124-995-11	ELECT	220MF	20%	10V
C464	1-110-341-11	MYLAR	330PF	5%	50V
C465	1-126-023-11	ELECT	100MF	20%	25V
C466	1-130-479-00	MYLAR	0.0047MF	5%	50V
C467	1-126-046-11	ELECT	3.3MF	20%	50V
C468	1-136-155-00	FILM	0.015MF	5%	50V
C469	1-130-471-00	MYLAR	0.001MF	5%	50V
C470	1-136-162-00	FILM	0.056MF	5%	50V
C479	1-124-927-11	ELECT	4.7MF	20%	50V
C483	1-126-046-11	ELECT	3.3MF	20%	50V
C501	1-136-165-00	FILM	0.1MF	5%	50V
C502	1-136-162-00	(GX90ES)...FILM	0.056MF	5%	50V
C503	1-126-044-11	ELECT	1MF	20%	50V
C505	1-126-022-11	ELECT	47MF	20%	25V
C506	1-162-282-31	CERAMIC	100PF	10%	50V
C508	1-126-047-11	ELECT	4.7MF	20%	50V
C509	1-136-164-00	FILM	0.082MF	5%	50V
C510	1-136-164-00	(GX90ES)...FILM	0.082MF	5%	50V
C511	1-136-156-00	FILM	0.018MF	5%	50V
C512	1-136-156-00	FILM	0.018MF	5%	50V
C513	1-136-165-00	FILM	0.1MF	5%	50V
C514	1-136-153-00	FILM	0.01MF	5%	50V
C551	1-136-165-00	FILM	0.1MF	5%	50V

Ref.No.	Part No.	Description			
C552	1-136-162-00	(GX90ES)...FILM	0.056MF	5%	50V
C553	1-126-044-11	ELECT	1MF	20%	50V
C555	1-126-022-11	ELECT	47MF	20%	25V
C556	1-162-282-31	CERAMIC	100PF	10%	50V
C558	1-126-047-11	ELECT	4.7MF	20%	50V
C559	1-136-164-00	FILM	0.082MF	5%	50V
C560	1-136-164-00	(GX90ES)...FILM	0.082MF	5%	50V
C561	1-136-156-00	FILM	0.018MF	5%	50V
C562	1-136-156-00	FILM	0.018MF	5%	50V
C563	1-136-165-00	FILM	0.1MF	5%	50V
C564	1-136-153-00	FILM	0.01MF	5%	50V
C601	1-124-925-11	ELECT	2.2MF	20%	50V
C601A	1-161-379-00	CERAMIC	0.01MF	30%	16V
C602	1-124-925-11	ELECT	2.2MF	20%	50V
C603	1-124-925-11	ELECT	2.2MF	20%	50V
C604	1-161-379-00	CERAMIC	0.01MF	30%	16V
C605	1-124-477-11	ELECT	47MF	20%	25V
C606	1-124-471-00	ELECT	1000MF	20%	6.3V
C607	1-124-471-00	ELECT	1000MF	20%	6.3V
C608	1-124-471-00	ELECT	1000MF	20%	6.3V
C701	1-124-925-11	ELECT	2.2MF	20%	50V
C702	1-124-925-11	ELECT	2.2MF	20%	50V
C704	1-124-925-11	ELECT	2.2MF	20%	50V
C705	1-124-925-11	ELECT	2.2MF	20%	50V
C708	1-124-471-00	ELECT	1000MF	20%	6.3V
C709	1-124-471-00	ELECT	1000MF	20%	6.3V
C710	1-161-379-00	CERAMIC	0.01MF	30%	16V
C711	1-124-477-11	ELECT	47MF	20%	25V
C712	1-161-379-00	CERAMIC	0.01MF	30%	16V
C713	1-124-477-11	ELECT	47MF	20%	25V
C714	1-124-925-11	ELECT	2.2MF	20%	50V
C715	1-124-925-11	ELECT	2.2MF	20%	50V
C716	1-161-379-00	CERAMIC	0.01MF	30%	16V
C801	1-125-613-11	ELECT	15000MF	20%	71V
C802	1-125-613-11	ELECT	15000MF	20%	71V
C803	1-125-636-11	ELECT	2200MF	20%	71V
C804	1-125-636-11	ELECT	2200MF	20%	71V
C805	1-126-028-11	ELECT	2200MF	20%	25V
C806	1-126-028-11	ELECT	2200MF	20%	25V
C807	1-126-052-11	ELECT	100MF	20%	50V
C808	1-126-023-11	ELECT	100MF	20%	16V
C809	1-130-777-11	FILM	0.1MF	10%	100V
C810	1-161-744-00	CERAMIC	0.01MF		400V
C811	1-161-379-00	CERAMIC	0.01MF	30%	16V
C812	1-124-902-00	ELECT	0.47MF	20%	50V
C813	1-124-464-11	ELECT	0.22MF	20%	50V
C814	1-126-059-11	ELECT	10MF	20%	50V
C815	1-126-022-11	ELECT	47MF	20%	16V
C816	1-126-027-11	ELECT	1000MF	20%	25V
C817	1-162-282-31	CERAMIC	100PF	10%	50V
C818	1-136-153-00	FILM	0.01MF	5%	50V
C819	1-136-153-00	FILM	0.01MF	5%	50V
C820	1-126-044-11	ELECT	1MF	20%	50V
C821	1-124-480-11	ELECT	470MF	20%	25V
CF01	1-567-389-11	FILTER, CERAMIC			
CF02	1-567-389-11	FILTER, CERAMIC			
CF03	1-567-389-11	FILTER, CERAMIC			
CF04	1-567-250-11	OSCILLATOR, CERAMIC			

Ref.No.	Part No.	Description
CN01	*1-569-387-11	SOCKET, CONNECTOR (PC BOARD) 10P
CN02	*1-569-380-11	SOCKET, CONNECTOR (PC BOARD) 3P
CN03	*1-569-380-11	SOCKET, CONNECTOR (PC BOARD) 3P
CN001	*1-564-508-11	PLUG, CONNECTOR 5P
CN003	*1-564-704-11	PIN, CONNECTOR (SMALL TYPE) 2P
CN004	*1-564-336-00	PIN, CONNECTOR 2P
CN005	*1-564-340-00	PIN, CONNECTOR 6P
CN051	*1-564-508-11	PLUG, CONNECTOR 5P
CN201	*1-564-506-11	PLUG, CONNECTOR 3P
CN202	*1-564-506-11	PLUG, CONNECTOR 3P
CN203	*1-564-505-11	PLUG, CONNECTOR 2P
CN204	*1-562-516-11	CONNECTOR, BOARD TO BOARD 5P
CN205	*1-564-529-11	CONNECTOR, BOARD TO BOARD 5P
CN206	*1-564-241-00	PIN, CONNECTOR 4P
CN207	*1-564-241-00	PIN, CONNECTOR 4P
CN208	*1-564-506-11	PLUG, CONNECTOR 3P
CN209	*1-564-336-00	PIN, CONNECTOR 2P
CN210	1-564-320-00	PIN, CONNECTOR 2P
CN252	*1-564-506-11	PLUG, CONNECTOR 3P
CN253	*1-564-505-11	PLUG, CONNECTOR 2P
CN254	*1-562-516-11	CONNECTOR, BOARD TO BOARD 5P
CN255	*1-564-529-11	CONNECTOR, BOARD TO BOARD 5P
CN256	*1-564-241-00	PIN, CONNECTOR 4P
CN301	*1-564-336-31	PIN, CONNECTOR 2P
CN302	*1-564-342-11	PIN, CONNECTOR 8P
CN304	*1-564-340-21	PIN, CONNECTOR 6P
CN305	*1-506-503-11	PIN, CONNECTOR 9P
CN401	*1-561-651-00	SOCKET, CONNECTOR 7P
CN402	*1-561-651-00	SOCKET, CONNECTOR 7P
CN403	*1-561-651-00	SOCKET, CONNECTOR 7P
CN403A	*1-569-395-11	PIN, CONNECTOR (PC BOARD) 10P
CN404	*1-561-650-00	SOCKET, CONNECTOR 5P
CN404A	*1-569-388-11	PIN, CONNECTOR (PC BOARD) 3P
CN405	*1-569-388-11	PIN, CONNECTOR (PC BOARD) 3P
CN406	*1-564-342-11	PIN, CONNECTOR 8P
CN407	*1-564-336-31	PIN, CONNECTOR 2P
CN408	*1-565-367-11	PIN, CONNECTOR (PC BOARD) 5P
CN409	*1-564-706-11	PIN, CONNECTOR (SMALL TYPE) 4P
CN411	*1-564-505-11	PLUG, CONNECTOR 2P
CN412	*1-564-336-00	PIN, CONNECTOR 2P
CN413	*1-564-705-11	PIN, CONNECTOR (SMALL TYPE) 3P
CN414	*1-564-506-11	PLUG, CONNECTOR 3P
CN419	*1-564-505-11	PLUG, CONNECTOR 2P
CN420	*1-564-507-11	PLUG, CONNECTOR 4P
CN421	*1-565-366-11	PIN, CONNECTOR (PC BOARD) 7P
CN422	*1-565-366-11	PIN, CONNECTOR (PC BOARD) 7P
CN423	*1-565-366-11	PIN, CONNECTOR (PC BOARD) 7P
CN504A	*1-564-705-11	PIN, CONNECTOR (SMALL TYPE) 3P
CN505	*1-564-705-11	PIN, CONNECTOR (SMALL TYPE) 3P
CN551	1-564-320-00	PIN, CONNECTOR 2P
CN552	*1-564-321-00	PIN, CONNECTOR 2P
CN553	*1-564-704-11	PIN, CONNECTOR (SMALL TYPE) 2P
CN554A	*1-564-705-11	PIN, CONNECTOR (SMALL TYPE) 3P
CN554C	*1-506-503-71	PIN, CONNECTOR 9P
CN555	*1-506-503-11	PIN, CONNECTOR 9P
CN602	*1-564-340-21	PIN, CONNECTOR 6P
CN603	*1-564-336-00	PIN, CONNECTOR 2P
CN604	1-566-213-11	PIN, CONNECTOR 4P (CONTROL-S IN)

Ref.No.	Part No.	Description
CN701	*1-564-339-00	PIN, CONNECTOR 5P
CN702	*1-564-338-31	PIN, CONNECTOR 4P
CN703	1-566-213-11	PIN, CONNECTOR 4P (CONTROL-S OUT)
CN801	*1-564-674-11	PIN, CONNECTOR 8P
CN802	*1-535-139-00	(GX90ES)(GX80ES:US)...PIN, CONNECTOR 2P
CN802	1-564-320-00	(GX80ES:AEP).....PIN, CONNECTOR 2P
CN803	1-564-320-00	PIN, CONNECTOR 2P
CN804	*1-560-061-00	PIN, CONNECTOR 3P
CN805	*1-564-706-11	PIN, CONNECTOR (SMALL TYPE) 4P
CN806	*1-564-705-11	PIN, CONNECTOR (SMALL TYPE) 3P
CN807	*1-560-061-00	PIN, CONNECTOR 3P
CN808	*1-564-321-00	PIN, CONNECTOR 2P
CN809	*1-564-321-00	PIN, CONNECTOR 2P
CN810	*1-564-706-11	PIN, CONNECTOR (SMALL TYPE) 4P
CN811	*1-564-241-00	PIN, CONNECTOR 4P
CN812	1-564-320-00	PIN, CONNECTOR 2P
CN901	*1-564-704-11	PIN, CONNECTOR (SMALL TYPE) 2P
CNJ801	⚠1-540-059-11	(GX90ES)(GX80ES:US)...OUTLET, AC (POLAR)
D01	8-719-912-20	DIODE 1SS120
D02	8-719-912-20	DIODE 1SS120
D03	8-719-912-20	DIODE 1SS120
D001	8-719-303-02	DIODE SEL2510C-D
D201	8-719-912-20	DIODE 1SS120
D202	8-719-933-39	DIODE HZS6C1L
D203	8-719-933-39	DIODE HZS6C1L
D204	8-719-912-20	DIODE 1SS120
D205	8-719-912-20	DIODE 1SS120
D206	8-719-912-20	DIODE 1SS120
D207	8-719-912-20	DIODE 1SS120
D208	8-719-912-20	DIODE 1SS120
D209A	8-719-912-20	DIODE 1SS120
D209	8-719-912-20	DIODE 1SS120
D210	8-719-912-20	DIODE 1SS120
D211	8-719-912-20	DIODE 1SS120
D212	8-719-912-20	DIODE 1SS120
D213	8-719-200-02	DIODE 10E2
D251	8-719-912-20	DIODE 1SS120
D252	8-719-933-39	DIODE HZS6C1L
D253	8-719-933-39	DIODE HZS6C1L
D254	8-719-912-20	DIODE 1SS120
D255	8-719-912-20	DIODE 1SS120
D256	8-719-912-20	DIODE 1SS120
D257	8-719-912-20	DIODE 1SS120
D258	8-719-912-20	DIODE 1SS120
D259A	8-719-912-20	DIODE 1SS120
D259	8-719-912-20	DIODE 1SS120
D260	8-719-912-20	DIODE 1SS120
D261	8-719-912-20	DIODE 1SS120
D301	8-719-301-52	DIODE SEL2810A-C
D302	8-719-301-52	DIODE SEL2810A-C
D303	8-719-301-52	DIODE SEL2810A-C
D307	8-719-912-20	(GX80ES:AEP)...DIODE 1SS120
D308	8-719-912-20	(GX90ES)(GX80ES:US)...DIODE 1SS120
D310	8-719-912-20	DIODE 1SS120
D311	8-719-912-20	DIODE 1SS120
D312	8-719-912-20	DIODE 1SS120
D316	8-719-912-20	DIODE 1SS120
D317	8-719-912-20	DIODE 1SS120
D318	8-719-914-11	DIODE HZ4ALL
D319	8-719-912-20	DIODE 1SS120
D320	8-719-912-20	DIODE 1SS120
D321	8-719-912-20	DIODE 1SS120
D322	8-719-912-20	DIODE 1SS120
D323	8-719-912-20	DIODE 1SS120
D324	8-719-912-20	DIODE 1SS120
D325	8-719-912-20	DIODE 1SS120
D326	8-719-912-20	DIODE 1SS120
D327	8-719-912-20	DIODE 1SS120
D329	8-719-912-20	DIODE 1SS120
D330	8-719-301-52	DIODE SEL2810A-C
D331	8-719-912-20	DIODE 1SS120
D332	8-719-912-20	DIODE 1SS120
D333	8-719-912-20	DIODE 1SS120
D334	8-719-912-20	(GX80ES:AEP)...DIODE 1SS120
D335	8-719-912-20	(GX80ES:AEP)...DIODE 1SS120
D341	8-719-302-07	DIODE SEL1810A-C
D342	8-719-302-07	DIODE SEL1810A-C
D401	8-719-000-84	DIODE UZL-7M1
D402	8-719-001-70	DIODE UZL-12M1
D403	8-719-001-70	DIODE UZL-12M1
D409	8-719-912-20	DIODE 1SS120
D410	8-719-010-36	DIODE UZ-5.1BS
D412	8-719-010-36	DIODE UZ-5.1BS
D460	8-719-000-84	DIODE UZL-7M1
D601	8-719-200-02	DIODE 10E2
D602	8-719-912-20	DIODE 1SS120
D801	8-719-302-38	DIODE RBV-602-01
D802	8-719-312-09	DIODE RBA-402
D803	8-719-302-92	DIODE RB-151LFB
D804	8-719-904-87	DIODE EQA02-28A
D805	8-719-912-20	DIODE 1SS120
D806	8-719-912-20	DIODE 1SS120
D807	8-719-914-11	DIODE HZ4ALL
D808	8-719-933-41	DIODE HZS6C3L
D809	8-719-933-41	DIODE HZS6C3L
D810	8-719-200-02	DIODE 10E2
D811	8-719-200-02	DIODE 10E2
D812	8-719-200-02	DIODE 10E2
D813	8-719-200-02	DIODE 10E2
D814	8-719-912-20	DIODE 1SS120
D815	8-719-912-20	DIODE 1SS120
D816	8-719-000-84	DIODE UZL-7M1
D817	8-719-200-02	DIODE 10E2
D818	8-719-200-02	DIODE 10E2
F801	⚠1-532-749-11	FUSE, GLASS TUBE (8A)
F802	⚠1-532-749-11	(GX90ES)(GX80ES:US)...FUSE, GLASS TUBE (8A)
F803	⚠1-532-749-11	(GX90ES)(GX80ES:US)...FUSE, GLASS TUBE (8A)
FE01	1-463-862-21	(GX80ES:US).....FRONT END
FE01	1-465-219-11	(GX90ES)(GX80ES:AEP)...FRONT END
FE02	1-236-461-11	ENCAPSULATED COMPONENT

Note:
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

Note:
Les composants identifiés par une marque ⚠ sont critiques pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifié.

Ref.No.	Part No.	Description
FL301	1-519-592-11	INDICATOR TUBE, FLUORESCENT
IC01	8-759-804-55	IC LA1266
IC02	8-759-801-80	IC LA3401
IC03	8-759-820-91	IC LC7218
IC001	8-759-820-62	IC LB1639
IC201	8-759-981-96	IC RC4560D
IC202	8-759-917-42	IC IR2E31A
IC203	8-759-111-68	IC UPC1237HA
IC204	8-759-112-93	IC UPC4570HA-1
IC252	8-759-917-42	IC IR2E31A
IC301	8-759-149-47	IC UPD75206G-557-1B
IC302	8-759-801-57	IC LB1494
IC303	8-749-920-59	IC A1QH3020S
IC401	8-759-112-93	IC UPC4570HA-1
IC402	8-759-112-93	IC UPC4570HA-1
IC403	8-759-112-93	IC UPC4570HA-1
IC404	8-759-112-93	IC UPC4570HA-1
IC405	8-759-112-93	IC UPC4570HA-1
IC406	8-759-112-93	IC UPC4570HA-1
IC407	8-759-112-93	IC UPC4570HA-1
IC408	8-759-805-14	IC LC7822
IC409	8-759-805-14	IC LC7822
IC410	8-759-981-96	IC RC4560D
IC411	8-759-604-35	IC M5F78M05L
IC412	8-759-604-40	IC M5F78M15L
IC413	8-759-604-46	IC M5F79M15L
IC414	8-759-112-93	IC UPC4570HA-1
IC501	8-759-981-96	IC RC4560D
IC601	8-759-991-77	IC BA7625
IC701	8-759-991-77	IC BA7625
IC702	8-759-991-77	IC BA7625
J201	1-565-320-11	JACK, PIN 6P (ADAPTOR IN/PRE OUT/POWER IN)
J202	1-565-320-11	JACK, PIN 6P (ADAPTOR OUT/VIDEO 1 IN/OUT)
J203	1-565-258-11	JACK, PIN 4P (VIDEO 2 IN/OUT)
J204	1-565-258-11	JACK, PIN 4P (VIDEO 3/TAPE IN)
J205	1-565-258-11	JACK, PIN 4P (DAT IN/TAPE OUT)
J206	1-565-320-11	JACK, PIN 6P (PHONO IN/DAT RECOUT/CD IN)
J601	1-565-351-11	JACK, PIN 3P (MONITAR OUT/VIDEO 1 IN/OUT)
J602	1-565-351-21	JACK, PIN 3P (VIDEO 2 OUT/IN,VIDEO 3 IN)
J701	1-566-846-11	CONNECTOR, (S) TERMINAL 4P(VIDEO 1 IN)
J702	1-566-846-11	CONNECTOR, (S) TERMINAL 4P(VIDEO 2 IN)
J703	1-566-846-11	CONNECTOR, (S) TERMINAL 4P(MONITOR OUT)
J704	1-566-846-11	CONNECTOR, (S) TERMINAL 4P(VIDEO 1 OUT)
J901	1-507-796-71	JACK
L01	1-410-509-11	INDUCTOR 10UH
L02	1-410-509-11	INDUCTOR 10UH
L04	1-410-613-11	INDUCTOR 1MMH
L201	*1-420-872-00	COIL, AIR CORE
L251	*1-420-872-00	COIL, AIR CORE
L301	1-408-563-11	INDUCTOR 10UH
L601	1-410-521-11	INDUCTOR 100UH
L701	1-410-521-11	INDUCTOR 100UH
L702	1-410-521-11	INDUCTOR 100UH

Ref.No.	Part No.	Description
LPF01	1-235-164-00	FILTER, LOW PASS
LPF02	1-235-164-00	FILTER, LOW PASS
PH201	8-719-946-27	DIODE PC837
PH251	8-719-946-27	DIODE PC837
Q01	8-729-266-93	TRANSISTOR 2SC2669-Y
Q02	8-729-266-93	TRANSISTOR 2SC2669-Y
Q03	8-729-266-93	TRANSISTOR 2SC2669-Y
Q04	8-729-266-93	TRANSISTOR 2SC2669-Y
Q10	8-729-201-84	TRANSISTOR 2SC3112-B
Q11	8-729-203-05	TRANSISTOR 2SK30AGR33-GR3
Q12	8-729-900-74	TRANSISTOR DTC143TS
Q13	8-729-119-76	TRANSISTOR 2SA1175-HFE
Q14	8-729-119-78	TRANSISTOR 2SC2785-HFE
Q15	8-729-900-74	TRANSISTOR DTC143TS
Q200	8-729-107-99	TRANSISTOR 2SC3622A-K
Q201	8-729-119-76	TRANSISTOR 2SA1175-HFE
Q202	8-729-140-84	TRANSISTOR 2SC1841-PAFAEA
Q203	8-729-140-84	TRANSISTOR 2SC1841-PAFAEA
Q204	8-729-203-21	TRANSISTOR 2SK389-GR
Q205	8-729-203-45	TRANSISTOR 2SC3423-O
Q206	8-729-119-76	TRANSISTOR 2SA1175-HFE
Q207	8-729-209-17	TRANSISTOR 2SA1360-O
Q208	8-729-203-45	TRANSISTOR 2SC3423-O
Q209	8-729-209-15	TRANSISTOR 2SD2012
Q210	8-729-141-08	TRANSISTOR 2SA1383-QP
Q211	8-729-141-07	TRANSISTOR 2SC3514-QP
Q212	8-729-141-46	TRANSISTOR 2SC4431-LK
Q213	8-729-141-37	TRANSISTOR 2SA1684-LK
Q214	8-729-322-28	TRANSISTOR 2SC2922-M-OY
Q215	8-729-322-29	TRANSISTOR 2SA1216-M-OY
Q216	8-729-108-14	TRANSISTOR 2SA988-F
Q250	8-729-107-99	TRANSISTOR 2SC3622A-K
Q251	8-729-119-76	TRANSISTOR 2SA1175-HFE
Q252	8-729-140-84	TRANSISTOR 2SC1841-PAFAEA
Q253	8-729-140-84	TRANSISTOR 2SC1841-PAFAEA
Q254	8-729-203-21	TRANSISTOR 2SK389-GR
Q255	8-729-203-45	TRANSISTOR 2SC3423-O
Q256	8-729-119-76	TRANSISTOR 2SA1175-HFE
Q257	8-729-209-17	TRANSISTOR 2SA1360-O
Q258	8-729-203-45	TRANSISTOR 2SC3423-O
Q259	8-729-209-15	TRANSISTOR 2SD2012
Q260	8-729-141-08	TRANSISTOR 2SA1383-QP
Q261	8-729-141-07	TRANSISTOR 2SC3514-QP
Q262	8-729-141-46	TRANSISTOR 2SC4431-LK
Q263	8-729-141-37	TRANSISTOR 2SA1684-LK
Q264	8-729-322-28	TRANSISTOR 2SC2922-M-OY
Q265	8-729-322-29	TRANSISTOR 2SA1216-M-OY
Q266	8-729-108-14	TRANSISTOR 2SA988-F
Q301	8-729-900-89	TRANSISTOR DTC144ES
Q302	8-729-115-27	TRANSISTOR BN1L3Z-P
Q303	8-729-900-89	TRANSISTOR DTC144ES
Q304	8-729-900-89	TRANSISTOR DTC144ES
Q305	8-729-900-63	TRANSISTOR DTA124ES
Q401	8-729-184-53	TRANSISTOR 2SC1845-EA
Q402	8-729-184-53	TRANSISTOR 2SC1845-EA
Q404	8-729-115-27	TRANSISTOR BN1L3Z-P
Q405	8-729-107-99	TRANSISTOR 2SC3622A-K
Q461	8-729-184-53	TRANSISTOR 2SC1845-EA

Ref.No.	Part No.	Description
Q462	8-729-184-53	TRANSISTOR 2SC1845-EA
Q465	8-729-107-99	TRANSISTOR 2SC3622A-K
Q501	8-729-119-78	TRANSISTOR 2SC2785-HFE
Q551	8-729-119-78	TRANSISTOR 2SC2785-HFE
Q602	8-729-119-76	TRANSISTOR 2SA1175-HFE
Q603	8-729-119-76	TRANSISTOR 2SA1175-HFE
Q604	8-729-900-80	TRANSISTOR DTC114ES
Q605	8-729-900-80	TRANSISTOR DTC114ES
Q606	8-729-141-26	TRANSISTOR 2SC3622A-LK
Q607	8-729-119-76	TRANSISTOR 2SA1175-HFE
Q608	8-729-202-55	TRANSISTOR 2SA950-O
Q702	8-729-119-76	TRANSISTOR 2SA1175-HFE
Q703	8-729-119-76	TRANSISTOR 2SA1175-HFE
Q705	8-729-119-76	TRANSISTOR 2SA1175-HFE
Q706	8-729-119-76	TRANSISTOR 2SA1175-HFE
Q801	8-729-140-05	TRANSISTOR 2SB1116A-K
Q802	8-729-620-05	TRANSISTOR 2SC2603-EF
Q803	8-729-900-89	TRANSISTOR DTC144ES
Q804	8-729-900-63	TRANSISTOR DTA124ES
Q805	8-729-119-76	TRANSISTOR 2SA1175-HFE
Q806	8-729-119-76	TRANSISTOR 2SA1175-HFE
Q807	8-729-620-05	TRANSISTOR 2SC2603-EF
Q808	8-729-107-25	TRANSISTOR 2SD1585-L
Q809	8-729-620-05	TRANSISTOR 2SC2603-EF
R01	1-249-411-11	CARBON 330 5% 1/4W
R02	1-249-411-11	CARBON 330 5% 1/4W
R03	1-249-408-11	CARBON 180 5% 1/4W
R04	1-249-414-11	CARBON 560 5% 1/4W
R05	1-249-411-11	CARBON 330 5% 1/4W
R06	1-249-434-11	CARBON 27K 5% 1/4W
R07	1-249-432-11	CARBON 18K 5% 1/4W
R09	1-249-411-11	CARBON 330 5% 1/4W
R10	1-249-434-11	CARBON 27K 5% 1/4W
R11	1-249-414-11	CARBON 560 5% 1/4W
R12	1-249-432-11	CARBON 18K 5% 1/4W
R17	1-249-437-11	CARBON 47K 5% 1/4W
R18	1-249-433-11	(GX90ES)(GX80ES:AEP) ...CARBON 22K 5% 1/4W
R21	1-249-437-11	(GX90ES)(GX80ES:AEP) ...CARBON 47K 5% 1/4W
R22	1-249-421-11	CARBON 2.2K 5% 1/4W
R23	1-249-434-11	CARBON 27K 5% 1/4W
R24	1-249-402-11	CARBON 56 5% 1/4W
R25	1-249-429-11	CARBON 10K 5% 1/4W
R26	1-249-404-00	CARBON 82 5% 1/4W
R27	1-249-429-11	CARBON 10K 5% 1/4W
R28	1-249-423-11	CARBON 3.3K 5% 1/4W
R29	1-249-441-11	CARBON 100K 5% 1/4W
R30	1-249-417-11	CARBON 1K 5% 1/4W
R31	1-249-431-11	CARBON 15K 5% 1/4W
R32	1-249-423-11	CARBON 3.3K 5% 1/4W
R33	1-249-417-11	CARBON 1K 5% 1/4W
R34	1-249-406-11	CARBON 120 5% 1/4W
R35	1-249-438-11	CARBON 56K 5% 1/4W
R36	1-249-406-11	CARBON 120 5% 1/4W
R37	1-249-423-11	CARBON 3.3K 5% 1/4W
R38	1-249-417-11	CARBON 1K 5% 1/4W
R39	1-249-429-11	CARBON 10K 5% 1/4W

Ref.No.	Part No.	Description
R40	1-249-417-11	CARBON 1K 5% 1/4W
R43	1-247-883-00	CARBON 150K 5% 1/4W
R44	1-247-883-00	CARBON 150K 5% 1/4W
R45	1-247-883-00	CARBON 150K 5% 1/4W
R46	1-247-883-00	CARBON 150K 5% 1/4W
R47	1-249-429-11	CARBON 10K 5% 1/4W
R48	1-249-405-11	CARBON 100 5% 1/4W
R49	1-249-425-11	CARBON 4.7K 5% 1/4W
R50	1-249-421-11	CARBON 2.2K 5% 1/4W
R51	1-249-425-11	CARBON 4.7K 5% 1/4W
R52	1-249-414-11	CARBON 560 5% 1/4W
R53	1-249-425-11	CARBON 4.7K 5% 1/4W
R54	1-249-423-11	CARBON 3.3K 5% 1/4W
R55	1-249-418-11	CARBON 1.2K 5% 1/4W
R56	1-249-413-11	CARBON 470 5% 1/4W
R57	1-249-406-11	CARBON 120 5% 1/4W
R58	1-249-429-11	CARBON 10K 5% 1/4W
R59	1-249-429-11	CARBON 10K 5% 1/4W
R60	1-249-429-11	CARBON 10K 5% 1/4W
R61	1-249-429-11	CARBON 10K 5% 1/4W
R62	1-249-437-11	CARBON 47K 5% 1/4W
R63	1-249-437-11	CARBON 47K 5% 1/4W
R64	1-249-433-11	CARBON 22K 5% 1/4W
R65	1-249-421-11	CARBON 2.2K 5% 1/4W
R66	1-249-421-11	CARBON 2.2K 5% 1/4W
R67	1-249-425-11	CARBON 4.7K 5% 1/4W
R68	1-249-425-11	CARBON 4.7K 5% 1/4W
R69	1-249-438-11	CARBON 56K 5% 1/4W
R71	1-249-411-11	CARBON 330 5% 1/4W
R72	1-249-411-11	CARBON 330 5% 1/4W
R73	1-249-423-11	CARBON 3.3K 5% 1/4W
R74	1-249-411-11	CARBON 330 5% 1/4W
R040	1-249-417-11	CARBON 1K 5% 1/4W
R041	1-249-417-11	CARBON 1K 5% 1/4W
R042	1-249-417-11	CARBON 1K 5% 1/4W
R043	1-249-417-11	CARBON 1K 5% 1/4W
R051	1-249-417-11	CARBON 1K 5% 1/4W
R052	1-249-405-11	CARBON 100 5% 1/4W
R055	1-249-417-11	CARBON 1K 5% 1/4W
R061	1-249-431-11	CARBON 15K 5% 1/4W
R062	1-249-417-11	CARBON 1K 5% 1/4W
R071	1-249-431-11	CARBON 15K 5% 1/4W
R201	1-249-405-11	CARBON 100 5% 1/4W
R202	1-249-437-11	CARBON 47K 5% 1/4W
R203	1-249-419-11	CARBON 1.5K 5% 1/4W
R204	1-249-429-11	CARBON 10K 5% 1/4W
R205	1-249-405-11	CARBON 100 5% 1/4W
R206	1-249-441-11	CARBON 100K 5% 1/4W
R208	1-249-417-11	CARBON 1K 5% 1/4W
R209	1-249-409-11	CARBON 220 5% 1/4W
R210	1-249-409-11	CARBON 220 5% 1/4W
R211	1-249-405-11	CARBON 100 5% 1/4W
R212	1-249-421-11	CARBON 2.2K 5% 1/4W
R213	1-249-419-11	CARBON 1.5K 5% 1/4W
R214	1-247-903-00	CARBON 1M 5% 1/4W
R215	1-212-881-11	FUSIBLE 100 5% 1/4W F
R216	1-249-586-11	CARBON 27K 5% 1/4W
R217	1-247-903-00	CARBON 1M 5% 1/4W

Ref.No.	Part No.	Description				
R218	1-249-586-11	CARBON	27K	5%	1/4W	
R219	1-247-713-11	CARBON	1K	5%	1/4W	
R220	1-249-425-11	CARBON	4.7K	5%	1/4W	
R221	1-212-881-11	FUSIBLE	100	5%	1/4W	F
R222	1-249-433-11	CARBON	22K	5%	1/4W	
R223	1-249-429-11	CARBON	10K	5%	1/4W	
R224	1-249-437-11	CARBON	47K	5%	1/4W	
R225	1-247-848-11	CARBON	5.1K	5%	1/4W	
R226	1-247-848-11	CARBON	5.1K	5%	1/4W	
R227	⚠1-247-718-11	CARBON	2.7K	5%	1/4W	F
R228	⚠1-247-710-11	CARBON	560	5%	1/4W	F
R229	1-249-417-11	CARBON	1K	5%	1/4W	
R231	1-249-429-11	CARBON	10K	5%	1/4W	
R232	1-247-903-00	CARBON	1M	5%	1/4W	
R233	⚠1-212-958-00	FUSIBLE	10	5%	1/2W	F
R233A	1-249-441-11	CARBON	100K	5%	1/4W	
R234	⚠1-212-998-00	FUSIBLE	470	5%	1/2W	F
R235	⚠1-212-958-00	FUSIBLE	10	5%	1/2W	F
R236	⚠1-212-958-00	FUSIBLE	10	5%	1/2W	F
R237	⚠1-212-982-00	FUSIBLE	100	5%	1/2W	F
R238	⚠1-212-958-00	FUSIBLE	10	5%	1/2W	F
R238A	1-247-891-00	CARBON	330K	5%	1/4W	
R239	1-217-611-00	RES, METAL PLATE 0.1				
R239A	1-249-417-11	CARBON	1K	5%	1/4W	
R240	1-217-611-00	RES, METAL PLATE 0.1				
R241	⚠1-247-717-11	CARBON	2.2K	5%	1/4W	F
R242	1-247-891-00	CARBON	330K	5%	1/4W	
R243	1-249-431-11	CARBON	15K	5%	1/4W	
R244	⚠1-212-950-00	FUSIBLE	4.7	5%	1/2W	F
R245	⚠1-212-950-00	FUSIBLE	4.7	5%	1/2W	F
R246	1-247-727-11	CARBON	10	5%	1/2W	
R247	1-249-431-11	CARBON	15K	5%	1/4W	
R248	1-249-429-11	CARBON	10K	5%	1/4W	
R249	1-247-887-00	CARBON	220K	5%	1/4W	
R251	1-249-405-11	CARBON	100	5%	1/4W	
R252	1-249-437-11	CARBON	47K	5%	1/4W	
R253	1-249-419-11	CARBON	1.5K	5%	1/4W	
R254	1-249-429-11	CARBON	10K	5%	1/4W	
R255	1-249-405-11	CARBON	100	5%	1/4W	
R256	1-249-441-11	CARBON	100K	5%	1/4W	
R258	1-249-417-11	CARBON	1K	5%	1/4W	
R259	1-249-409-11	CARBON	220	5%	1/4W	
R260	1-249-409-11	CARBON	220	5%	1/4W	
R261	1-249-405-11	CARBON	100	5%	1/4W	
R262	1-249-421-11	CARBON	2.2K	5%	1/4W	
R263	1-249-419-11	CARBON	1.5K	5%	1/4W	
R264	1-247-903-00	CARBON	1M	5%	1/4W	
R265	⚠1-212-881-11	FUSIBLE	100	5%	1/4W	F
R266	1-249-586-11	CARBON	27K	5%	1/4W	
R267	1-247-903-00	CARBON	1M	5%	1/4W	
R268	1-249-586-11	CARBON	27K	5%	1/4W	
R269	1-247-713-11	CARBON	1K	5%	1/4W	
R270	1-249-425-11	CARBON	4.7K	5%	1/4W	
R271	⚠1-212-881-11	FUSIBLE	100	5%	1/4W	F
R272	1-249-433-11	CARBON	22K	5%	1/4W	
R273	1-249-429-11	CARBON	10K	5%	1/4W	
R274	1-249-437-11	CARBON	47K	5%	1/4W	

Ref.No.	Part No.	Description				
R275	1-247-848-11	CARBON	5.1K	5%	1/4W	
R276	1-247-848-11	CARBON	5.1K	5%	1/4W	
R277	⚠1-247-718-11	CARBON	2.7K	5%	1/4W	F
R278	⚠1-247-710-11	CARBON	560	5%	1/4W	F
R279	1-249-417-11	CARBON	1K	5%	1/4W	
R281	1-249-429-11	CARBON	10K	5%	1/4W	
R282	1-247-903-00	CARBON	1M	5%	1/4W	
R283	⚠1-212-958-00	FUSIBLE	10	5%	1/2W	F
R283A	1-249-441-11	CARBON	100K	5%	1/4W	
R284	⚠1-212-998-00	FUSIBLE	470	5%	1/2W	F
R285	⚠1-212-958-00	FUSIBLE	10	5%	1/2W	F
R286	⚠1-212-958-00	FUSIBLE	10	5%	1/2W	F
R287	⚠1-212-982-00	FUSIBLE	100	5%	1/2W	F
R288	⚠1-212-958-00	FUSIBLE	10	5%	1/2W	F
R288A	1-247-891-00	CARBON	330K	5%	1/4W	
R289	1-217-611-00	RES, METAL PLATE 0.1				
R289A	1-249-417-11	CARBON	1K	5%	1/4W	
R290	1-217-611-00	RES, METAL PLATE 0.1				
R291	⚠1-247-717-11	CARBON	2.2K	5%	1/4W	F
R292	1-247-891-00	CARBON	330K	5%	1/4W	
R293	1-249-431-11	CARBON	15K	5%	1/4W	
R294	⚠1-212-950-00	FUSIBLE	4.7	5%	1/2W	F
R295	⚠1-212-950-00	FUSIBLE	4.7	5%	1/2W	F
R296	1-247-727-11	CARBON	10	5%	1/2W	
R301	1-249-401-11	CARBON	47	5%	1/4W	
R302	1-249-381-11	CARBON	1	5%	1/4W	
R303	1-249-437-11	CARBON	47K	5%	1/4W	
R304	1-249-437-11	CARBON	47K	5%	1/4W	
R305	1-249-429-11	CARBON	10K	5%	1/4W	
R306	1-249-437-11	CARBON	47K	5%	1/4W	
R307	1-249-437-11	CARBON	47K	5%	1/4W	
R308	1-249-437-11	CARBON	47K	5%	1/4W	
R309	1-249-437-11	CARBON	47K	5%	1/4W	
R310	1-249-437-11	CARBON	47K	5%	1/4W	
R311	1-249-437-11	CARBON	47K	5%	1/4W	
R312	1-249-437-11	CARBON	47K	5%	1/4W	
R313	1-249-437-11	CARBON	47K	5%	1/4W	
R314	1-249-437-11	CARBON	47K	5%	1/4W	
R315	1-249-437-11	CARBON	47K	5%	1/4W	
R316	1-249-437-11	CARBON	47K	5%	1/4W	
R317	1-249-437-11	CARBON	47K	5%	1/4W	
R318	1-249-437-11	CARBON	47K	5%	1/4W	
R319	1-249-437-11	CARBON	47K	5%	1/4W	
R320	1-249-437-11	CARBON	47K	5%	1/4W	
R321	1-249-437-11	CARBON	47K	5%	1/4W	
R322	1-249-437-11	CARBON	47K	5%	1/4W	
R323	1-249-437-11	CARBON	47K	5%	1/4W	
R324	1-249-437-11	CARBON	47K	5%	1/4W	
R325	1-249-437-11	CARBON	47K	5%	1/4W	
R326	1-249-381-11	CARBON	1	5%	1/4W	
R327	1-249-437-11	CARBON	47K	5%	1/4W	
R328	1-249-437-11	CARBON	47K	5%	1/4W	
R329	1-249-437-11	CARBON	47K	5%	1/4W	
R330	1-249-437-11	CARBON	47K	5%	1/4W	
R331	1-249-437-11	CARBON	47K	5%	1/4W	
R332	1-249-437-11	CARBON	47K	5%	1/4W	

Note:
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

Note:
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Ne les remplacer que par une pièce portant le numéro spécifié.

Ref.No.	Part No.	Description				
R333	1-249-437-11	CARBON	47K	5%	1/4W	
R334	1-249-437-11	CARBON	47K	5%	1/4W	
R335	1-249-437-11	CARBON	47K	5%	1/4W	
R336	1-249-437-11	CARBON	47K	5%	1/4W	
R337	1-249-433-11	CARBON	22K	5%	1/4W	
R338	1-249-437-11	CARBON	47K	5%	1/4W	
R339	1-249-437-11	CARBON	47K	5%	1/4W	
R340	1-249-409-11	CARBON	220	5%	1/4W	
R341	1-249-429-11	CARBON	10K	5%	1/4W	
R342	1-249-437-11	CARBON	47K	5%	1/4W	
R343	1-249-437-11	CARBON	47K	5%	1/4W	
R345	1-249-433-11	CARBON	22K	5%	1/4W	
R346	1-249-407-11	CARBON	150	5%	1/4W	
R347	1-249-407-11	CARBON	150	5%	1/4W	
R348	1-249-407-11	CARBON	150	5%	1/4W	
R349	1-249-411-11	CARBON	330	5%	1/4W	
R350	1-249-425-11	CARBON	4.7K	5%	1/4W	
R351	1-249-411-11	CARBON	330	5%	1/4W	
R352	1-249-425-11	CARBON	4.7K	5%	1/4W	
R353	1-249-411-11	CARBON	330	5%	1/4W	
R354	1-249-425-11	CARBON	4.7K	5%	1/4W	
R355	1-249-411-11	CARBON	330	5%	1/4W	
R356	1-249-425-11	CARBON	4.7K	5%	1/4W	
R357	1-249-420-11	CARBON	1.8K	5%	1/4W	
R358	1-249-420-11	CARBON	1.8K	5%	1/4W	
R359	1-249-417-11	CARBON	1K	5%	1/4W	
R360	1-249-437-11	CARBON	47K	5%	1/4W	
R361	1-249-429-11	CARBON	10K	5%	1/4W	
R362A	1-249-437-11	CARBON	47K	5%	1/4W	
R362	1-249-441-11	CARBON	100K	5%	1/4W	
R401	1-247-872-11	CARBON	51K	5%	1/4W	
R402	1-249-411-11	CARBON	330	5%	1/4W	
R403	1-249-405-11	CARBON	100	5%	1/4W	
R404	1-247-903-00	CARBON	1M	5%	1/4W	
R405	1-249-417-11	CARBON	1K	5%	1/4W	
R406	1-249-417-11	CARBON	1K	5%	1/4W	
R407	1-249-429-11	CARBON	10K	5%	1/4W	
R408	1-249-405-11	CARBON	100	5%	1/4W	
R409	1-249-405-11	CARBON	100	5%	1/4W	
R410	1-249-419-11	CARBON	1.5K	5%	1/4W	
R411	1-249-409-11	CARBON	220	5%	1/4W	
R412	1-249-409-11	CARBON	220	5%	1/4W	
R413	1-249-425-11	CARBON	4.7K	5%	1/4W	
R414	1-249-438-11	CARBON	56K	5%	1/4W	
R415	1-249-409-11	CARBON	220	5%	1/4W	
R416	1-249-391-11	(GX90ES)...CARBON	6.8	5%	1/4W	
R417	1-249-417-11	CARBON	1K	5%	1/4W	
R418	1-249-417-11	CARBON	1K	5%	1/4W	
R419	1-249-417-11	CARBON	1K	5%	1/4W	
R420	1-249-417-11	CARBON	1K	5%	1/4W	
R421	1-249-417-11	CARBON	1K	5%	1/4W	
R422	1-249-417-11	CARBON	1K	5%	1/4W	
R423	1-249-417-11	CARBON	1K	5%	1/4W	
R424	1-249-437-11	CARBON	47K	5%	1/4W	
R425	1-249-437-11	CARBON	47K	5%	1/4W	
R426	1-249-437-11	CARBON	47K	5%	1/4W	
R427	1-249-437-11	CARBON	47K	5%	1/4W	
R428	1-249-437-11	CARBON	47K	5%	1/4W	
R429	1-249-437-11	CARBON	47K	5%	1/4W	
R430	1-249-437-11	CARBON	47K	5%	1/4W	
R431	1-249-437-11	CARBON	47K	5%	1/4W	
R432	1-249-437-11	CARBON	47K	5%	1/4W	
R433	1-249-437-11	CARBON	47K	5%	1/4W	
R434	1-249-437-11	CARBON	47K	5%	1/4W	
R435	1-249-437-11	CARBON	47K	5%	1/4W	
R436	1-249-437-11	CARBON	47K	5%	1/4W	
R437	1-249-437-11	CARBON	47K	5%	1/4W	
R438	1-249-425-11	CARBON	4.7K	5%	1/4W	
R440	1-249-417-11	CARBON	1K	5%	1/4W	
R441	1-249-417-11	CARBON	1K	5%	1/4W	
R442	1-249-417-11	CARBON	1K	5%	1/4W	
R443	1-249-417-11	CARBON	1K	5%	1/4W	
R444	⚠1-215-883-11	METAL OXIDE	33	5%	2W	F
R445	⚠1-215-883-11	METAL OXIDE	33	5%	2W	F
R446	⚠1-216-422-11	METAL OXIDE	18	5%	1W	F
R447	1-247-745-11	CARBON	330	5%	1/2W	
R449	1-249-417-11	CARBON	1K	5%	1/4W	
R450	1-249-441-11	CARBON	100K	5%	1/4W	
R451	1-249-417-11	CARBON	1K	5%	1/4W	
R452	1-249-405-11	CARBON	100	5%	1/4W	
R454	1-249-441-11	CARBON	100K	5%	1/4W	
R461	1-247-872-11	CARBON	51K	5%	1/4W	
R462	1-249-411-11	CARBON	330	5%	1/4W	
R463	1-249-405-11	CARBON	100	5%	1/4W	
R464	1-247-903-00	CARBON	1M	5%	1/4W	
R465	1-249-417-11	CARBON	1K	5%	1/4W	
R466	1-249-417-11	CARBON	1K	5%	1/4W	
R467	1-249-429-11	CARBON	10K	5%	1/4W	
R468	1-249-405-11	CARBON	100	5%	1/4W	
R469	1-249-405-11	CARBON	100	5%	1/4W	
R470	1-249-419-11	CARBON	1.5K	5%	1/4W	
R472	1-249-409-11	CARBON	220	5%	1/4W	
R473	1-249-425-11	CARBON	4.7K	5%	1/4W	
R474	1-249-438-11	CARBON	56K	5%	1/4W	
R476	1-249-391-11	(GX90ES)...CARBON	6.8	5%	1/4W	
R477	1-249-417-11	CARBON	1K	5%	1/4W	
R478	1-249-417-11	CARBON	1K	5%	1/4W	
R479	1-249-417-11	CARBON	1K	5%	1/4W	
R480	1-249-417-11	CARBON	1K	5%	1/4W	
R481	1-249-417-11	CARBON	1K	5%	1/4W	
R482	1-249-417-11	CARBON	1K	5%	1/4W	
R483	1-249-417-11	CARBON	1K	5%	1/4W	
R484	1-249-437-11	CARBON	47K	5%	1/4W	
R485	1-249-437-11	CARBON	47K	5%	1/4W	
R486	1-249-437-11	CARBON	47K	5%	1/4W	
R487	1-249-437-11	CARBON	47K	5%	1/4W	
R488	1-249-437-11	CARBON	47K	5%	1/4W	
R489	1-249-437-11	CARBON	47K	5%	1/4W	
R490	1-249-437-11	CARBON	47K	5%	1/4W	
R491	1-249-437-11	CARBON	47K	5%	1/4W	
R492	1-249-437-11	CARBON	47K	5%	1/4W	
R493	1-249-437-11	CARBON	47K	5%	1/4W	
R494	1-249-437-11	CARBON	47K	5%	1/4W	
R495	1-249-437-11	CARBON	47K	5%	1/4W	

Note:
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Replace only with part number specified.

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Ne les remplacer que par une pièce portant le numéro spécifié.

Ref.No.	Part No.	Description				
R496	1-249-437-11	CARBON	47K	5%	1/4W	
R497	1-249-437-11	CARBON	47K	5%	1/4W	
R501	1-247-903-00	CARBON	1M	5%	1/4W	
R502	1-249-423-11	CARBON	3.3K	5%	1/4W	
R503	1-247-903-00	CARBON	1M	5%	1/4W	
R504	1-247-889-00	CARBON	270K	5%	1/4W	
R505	1-247-840-00	CARBON	2.4K	5%	1/4W	
R506	1-247-889-00	CARBON	270K	5%	1/4W	
R507	1-249-418-11	CARBON	1.2K	5%	1/4W	
R508	1-249-441-11	CARBON	100K	5%	1/4W	
R509	1-249-423-11	CARBON	3.3K	5%	1/4W	
R510	1-249-422-11	CARBON	2.7K	5%	1/4W	
R511	1-247-903-00	(GX90ES)...CARBON	1M	5%	1/4W	
R512	1-249-410-11	CARBON	270	5%	1/4W	
R513	1-247-903-00	(GX90ES)...CARBON	1M	5%	1/4W	
R514	1-247-832-11	CARBON	1.1K	5%	1/4W	
R515	1-249-418-11	CARBON	1.2K	5%	1/4W	
R516	1-249-423-11	CARBON	3.3K	5%	1/4W	
R517	1-247-840-00	CARBON	2.4K	5%	1/4W	
R519	1-249-433-11	CARBON	22K	5%	1/4W	
R551	1-247-903-00	CARBON	1M	5%	1/4W	
R552	1-249-423-11	CARBON	3.3K	5%	1/4W	
R553	1-247-903-00	CARBON	1M	5%	1/4W	
R554	1-247-889-00	CARBON	270K	5%	1/4W	
R555	1-247-840-00	CARBON	2.4K	5%	1/4W	
R556	1-247-889-00	CARBON	270K	5%	1/4W	
R557	1-249-418-11	CARBON	1.2K	5%	1/4W	
R558	1-249-441-11	CARBON	100K	5%	1/4W	
R559	1-249-423-11	CARBON	3.3K	5%	1/4W	
R560	1-249-422-11	CARBON	2.7K	5%	1/4W	
R561	1-247-903-00	(GX90ES)...CARBON	1M	5%	1/4W	
R562	1-249-410-11	CARBON	270	5%	1/4W	
R563	1-247-903-00	(GX90ES)...CARBON	1M	5%	1/4W	
R564	1-247-832-11	CARBON	1.1K	5%	1/4W	
R565	1-249-418-11	CARBON	1.2K	5%	1/4W	
R566	1-249-423-11	CARBON	3.3K	5%	1/4W	
R567	1-247-840-00	CARBON	2.4K	5%	1/4W	
R569	1-249-433-11	CARBON	22K	5%	1/4W	
R601	1-247-804-11	CARBON	75	5%	1/4W	
R602	1-247-804-11	CARBON	75	5%	1/4W	
R603	1-247-804-11	CARBON	75	5%	1/4W	
R604	1-249-403-11	CARBON	68	5%	1/4W	
R605	1-247-818-11	CARBON	300	5%	1/4W	
R606	1-247-818-11	CARBON	300	5%	1/4W	
R607	1-249-409-11	CARBON	220	5%	1/4W	
R608	1-249-405-11	CARBON	100	5%	1/4W	
R609	1-249-403-11	CARBON	68	5%	1/4W	
R610	1-249-405-11	CARBON	100	5%	1/4W	
R611	1-249-403-11	CARBON	68	5%	1/4W	
R612	1-249-405-11	CARBON	100	5%	1/4W	
R613	1-249-417-11	CARBON	1K	5%	1/4W	
R614	1-249-437-11	CARBON	47K	5%	1/4W	
R615	1-249-429-11	CARBON	10K	5%	1/4W	
R616	1-249-409-11	CARBON	220	5%	1/4W	
R617	1-249-393-11	CARBON	10	5%	1/4W	
R618	1-249-429-11	CARBON	10K	5%	1/4W	
R619	1-249-429-11	CARBON	10K	5%	1/4W	

Ref.No.	Part No.	Description				
R620	1-249-429-11	CARBON	10K	5%	1/4W	
R621	1-249-429-11	CARBON	10K	5%	1/4W	
R623	1-249-429-11	CARBON	10K	5%	1/4W	
R701	1-247-804-11	CARBON	75	5%	1/4W	
R702	1-247-804-11	CARBON	75	5%	1/4W	
R704	1-247-804-11	CARBON	75	5%	1/4W	
R705	1-247-804-11	CARBON	75	5%	1/4W	
R709	1-249-405-11	CARBON	100	5%	1/4W	
R710	1-249-405-11	CARBON	100	5%	1/4W	
R711	1-249-409-11	CARBON	220	5%	1/4W	
R712	1-247-818-11	CARBON	300	5%	1/4W	
R714	1-249-403-11	CARBON	68	5%	1/4W	
R715	1-249-403-11	CARBON	68	5%	1/4W	
R717	1-247-818-11	CARBON	300	5%	1/4W	
R718	1-249-409-11	CARBON	220	5%	1/4W	
R719	1-249-405-11	CARBON	100	5%	1/4W	
R720	1-249-405-11	CARBON	100	5%	1/4W	
R723	1-249-403-11	CARBON	68	5%	1/4W	
R724	1-249-403-11	CARBON	68	5%	1/4W	
R803 ⚠	1-213-043-11	FUSIBLE	2	5%	1W	F
R804 ⚠	1-213-043-11	FUSIBLE	2	5%	1W	F
R806	1-249-437-11	CARBON	47K	5%	1/4W	
R807	1-249-425-11	CARBON	4.7K	5%	1/4W	
R808	1-249-429-11	CARBON	10K	5%	1/4W	
R809	1-202-725-00	(GX90ES)(GX80ES:US) ...SOLID	3.3M	10%	1/2W	
R810	1-247-895-00	CARBON	470K	5%	1/4W	
R811	1-249-417-11	CARBON	1K	5%	1/4W	
R812	1-249-426-11	CARBON	5.6K	5%	1/4W	
R813	1-249-426-11	CARBON	5.6K	5%	1/4W	
R814	1-249-417-11	CARBON	1K	5%	1/4W	
R815	1-249-429-11	CARBON	10K	5%	1/4W	
R816	1-249-433-11	CARBON	22K	5%	1/4W	
R817	1-249-429-11	CARBON	10K	5%	1/4W	
R818	1-249-417-11	CARBON	1K	5%	1/4W	
R819	1-249-429-11	CARBON	10K	5%	1/4W	
R821 ⚠	1-247-747-11	CARBON	470	5%	1/2W	F
R822 ⚠	1-216-433-00	METAL OXIDE	1.2K	5%	1W	F
R1006	1-249-429-11	CARBON	10K	5%	1/4W	
R2000	1-249-426-11	CARBON	5.6K	5%	1/4W	
R2001	1-247-885-00	CARBON	180K	5%	1/4W	
R2003 ⚠	1-247-738-11	CARBON	82	5%	1/2W	F
R2004 ⚠	1-247-738-11	CARBON	82	5%	1/2W	F
R2005	1-247-747-11	CARBON	470	5%	1/2W	
R2055	1-247-747-11	CARBON	470	5%	1/2W	
R4001	1-249-417-11	CARBON	1K	5%	1/4W	
R4002	1-249-437-11	CARBON	47K	5%	1/4W	
R4003	1-249-437-11	CARBON	47K	5%	1/4W	
R4004	1-247-903-00	CARBON	1M	5%	1/4W	
R4005	1-249-417-11	CARBON	1K	5%	1/4W	
R4051	1-249-417-11	CARBON	1K	5%	1/4W	
R4052	1-249-437-11	CARBON	47K	5%	1/4W	
R4053	1-249-437-11	CARBON	47K	5%	1/4W	
R4054	1-247-903-00	CARBON	1M	5%	1/4W	
RT02	1-238-019-11	RES, ADJ, CARBON 47K				
RT03	1-238-020-11	RES, ADJ, CARBON 100K				
RT04	1-238-020-11	RES, ADJ, CARBON 100K				

Note:
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Ref.No.	Part No.	Description
RT05	1-238-021-11	RES, ADJ, CARBON 220K
RT202	1-237-455-11	RES, ADJ, CARBON 500
RT252	1-237-455-11	RES, ADJ, CARBON 500
RV001	1-238-975-11	(GX80ES)...RES, VAR, CARBON 30K/30K
RV001	1-241-135-11	(GX90ES)...RES, VAR, CARBON 30K/30K
RV501	1-238-140-21	RES, VAR, CARBON 20K/20K
RV502	1-238-141-21	RES, VAR, CARBON 20K/20K
RV503	1-238-141-21	RES, VAR, CARBON 20K/20K
RV504	1-238-142-21	RES, VAR, CARBON 20K/20K
RY201	1-515-703-11	RELAY
RY801	1-515-701-11	RELAY
S301	1-554-303-21	SWITCH, KEY BOARD (POWER)
S302	1-554-303-21	SWITCH, KEY BOARD (SHIFT)
S303	1-554-303-21	SWITCH, KEY BOARD (1)
S304	1-554-303-21	SWITCH, KEY BOARD (2)
S305	1-554-303-21	SWITCH, KEY BOARD (3)
S306	1-554-303-21	SWITCH, KEY BOARD (4)
S307	1-554-303-21	SWITCH, KEY BOARD (5)
S308	1-554-303-21	SWITCH, KEY BOARD (6)
S309	1-554-303-21	SWITCH, KEY BOARD (7)
S310	1-554-303-21	SWITCH, KEY BOARD (8)
S311	1-554-303-21	SWITCH, KEY BOARD (9)
S312	1-554-303-21	SWITCH, KEY BOARD (0)
S313	1-554-303-21	SWITCH, KEY BOARD (FM MODE)
S314	1-554-303-21	SWITCH, KEY BOARD (AUTO/MAN)
S315	1-554-303-21	SWITCH, KEY BOARD (FM)
S316	1-554-303-21	SWITCH, KEY BOARD (AM)
S317	1-554-303-21	SWITCH, KEY BOARD (MEMORY)
S318	1-554-303-21	SWITCH, KEY BOARD (TUNE -)
S319	1-554-303-21	SWITCH, KEY BOARD (TUNE +)
S320	1-554-303-21	SWITCH, KEY BOARD (CH -)
S321	1-554-303-21	SWITCH, KEY BOARD (CH +)
S322	1-554-303-21	SWITCH, KEY BOARD (DAT)
S323	1-554-303-21	SWITCH, KEY BOARD (CD)
S324	1-554-303-21	SWITCH, KEY BOARD (TUNER)
S325	1-554-303-21	SWITCH, KEY BOARD (PHONO)
S326	1-554-303-21	SWITCH, KEY BOARD (VIDEO 1)
S327	1-554-303-21	SWITCH, KEY BOARD (VIDEO 2)
S328	1-554-303-21	SWITCH, KEY BOARD (VIDEO 3)
S329	1-554-303-21	SWITCH, KEY BOARD (TAPE)
S330	1-554-303-21	SWITCH, KEY BOARD (DISP)
S340	1-571-112-11	SWITCH, PUSH (1 KEY)(ADAPTOR)
S341	1-571-470-11	SWITCH, PUSH (1 KEY)(SOURCE DIRECT)
S351	1-554-303-21	SWITCH, KEY BOARD (MUTING)
S401	1-554-019-21	(GX90ES)...SWITCH, SLIDE (REMOTE TYPE)(CARTRIDGE)
S402	1-571-465-11	SWITCH, SLIDE (REC OUT SELECTOR)
S501	1-571-500-11	(GX80ES)...SWITCH, PUSH (1 KEY) (LOUDNESS)
S501	1-572-309-11	(GX90ES)...SWITCH, PUSH (3 KEY) (LOUDNESS)
S502	1-572-309-11	(GX90ES)...SWITCH, PUSH (3 KEY) (SUBSONIC)
S503	1-571-500-11	(GX90ES)...SWITCH, PUSH (1 KEY) (TURNOVER)
S504	1-572-312-11	(GX90ES)...SWITCH, PUSH (1 KEY) (TURNOVER)
S551	1-570-897-11	SWITCH, SLIDE (REMOTE)(SPEAKERS)
S801	1-571-309-31	SWITCH (SPEAKER IMPEDANCE)
T01	1-404-713-11	TRANSFORMER, IF
T02	1-404-743-11	COIL, DISCRIMINATOR
T03	1-404-742-11	COIL, DISCRIMINATOR
T801	⚠1-448-517-21	(GX90ES)(GX80ES:US) ....TRANSFORMER, POWER
T801	⚠1-448-523-11	(GX80ES:AEP)....TRANSFORMER, POWER
T901	⚠1-450-021-11	(GX90ES).....TRANSFORMER, POWER
T901	⚠1-450-030-11	(GX80ES:US)....TRANSFORMER, POWER
T901	⚠1-450-151-11	(GX80ES:AEP)...TRANSFORMER, POWER
TB01	1-537-235-11	TERMINAL BOARD (SP)
TM01	*1-533-708-00	(GX80ES:US)....TERMINAL BOARD, PUSH 4P
TM01	*1-537-138-31	(GX80ES:AEP)...TERMINAL BOARD (ANT)
TM01	*1-537-225-11	(GX90ES)...TERMINAL BOARD(ANT (F) TYPE)
TP01	*1-560-060-00	PIN, CONNECTOR 2P
XT01	1-577-126-11	VIBRATOR, CRYSTAL
XT301	1-567-775-11	VIBRATOR, CERAMIC

ACCESSORY & PACKING MATERIAL

1-417-090-00	(GX80ES)...MATCHING TRANSFORMER, ANTENNA
1-417-141-11	(GX90ES)...MATCHING TRANSFORMER, ANTENNA
1-465-419-11	REMOTE COMMANDER (RM-P303)
1-501-224-00	ANTENNA, FEEDER
1-501-374-11	ANTENNA, LOOP
*2-135-414-01	SHEET, PROTECTION
3-703-450-01	(GX80ES/GX90ES:US)...INSTRUCTION
*3-703-710-41	STICKER, SONY SYMBOL (12)
3-751-914-11	(GX80ES:AEP).....MANUAL, INSTRUCTION
3-751-914-21	(GX80ES:US/GX90ES)...MANUAL, INSTRUCTION
4-847-802-00	SCREW
*4-931-663-01	CUSHION
*4-931-664-01	(GX90ES)...INDIVIDUAL CARTON
*4-931-665-01	(GX80ES)...INDIVIDUAL CARTON

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